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EPTEMBER 28, 1942
OLUME 31, No. 20

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AMERICAN DYESTUFF REPORTER

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AND COLORISTS

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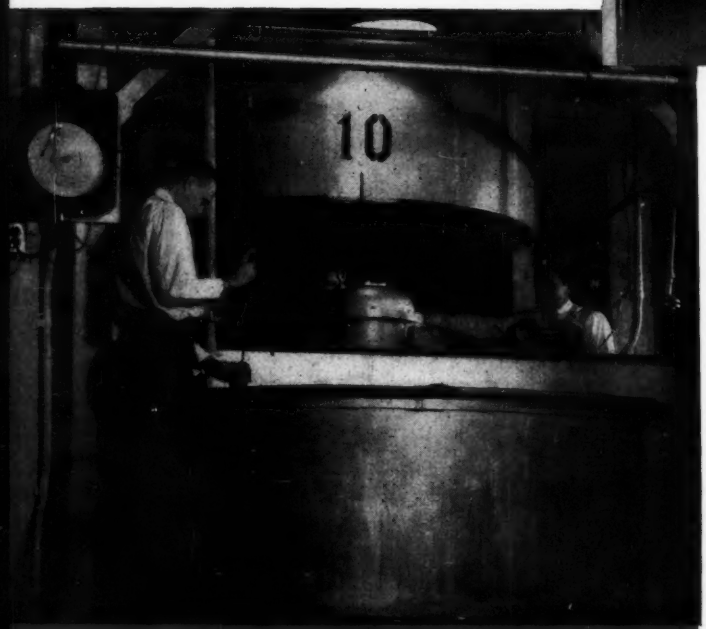

(above) One of Cyanamid's modern large-capacity units for the production of textile chemicals. Large-scale production means greatest possible uniformity in chemical supply.

(left) A similar unit in another Cyanamid plant. Each step in Cyanamid's volume production methods is planned and carried out to deliver highest quality as well.

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This LOW TITER SOAP Takes It In STRIDE

Cold scouring is nothing new or strange to many processors of woolens and worsteds. But the likelihood of fuel shortages in the months to come is focussing unusual attention on this scouring procedure.

Present users of Olate already know that scouring at low temperatures presents no real problem to this neutral, low titer soap. But if you have never used Olate—and if you're considering cold scouring—here are some Olate facts which should interest you.

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Quick, thorough, even penetration of the fabric is essential in cold scouring, as it is in fulling. And that calls for a *fluid* soap solution—one which will *stay fluid at temperatures as low as 50° F.*

Much of Olate's success in cold scouring and fulling can be credited to its exceptionally low titer which assures the fluidity of its solutions at low temperatures—even in high concentrations. *Solutions containing as much as 12 ounces of Olate per gallon stay fluid enough at ordinary temperatures to be poured or piped readily.*

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If you're now using the cold scouring process—or if you're considering it—try Olate. You'll find Olate dependable "processing insurance" from every angle—economy, efficiency and the saleability of your finished goods.

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TEXTARID SPECIAL

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That amazingly versatile plant, the Soybean, may soon become an important new source of textile fibers. Produced at half the cost of sheep's wool, Soybean Synthetics mixed with animal wool may provide a valuable supplement or substitute for imported fibers

Soybean Synthetics are but one of the bewildering array of new developments of textile research that complicate dyehouse procedure. But whatever the fibers or mixtures of the future, National Technical Service will be ready with the formulas and colors to give you the result you must have at lowest possible cost.

Always consult National Technical Service first.

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Why we have a "Paternal Interest" in all

PIGMENT-DYEING
PIGMENT-PRINTING

We have a paternal interest in pigment-dyeing and pigment-printing. After all, we cannot help feeling the responsibility of the technical pioneer in this fast growing field. For seven years our Research Laboratories have been examining the fundamental factors involved in binding pigments successfully to fabric fibres. For over four years we have offered Aridye pigmented emulsions commercially and have continually improved our technique and practice. In spite of the general recognition of the inevitable part pigments will play in the industry, there are many who do not yet understand the advantages and limitations of pigment-printing and pigment-dyeing. For such we raise and answer the following questions:

How Firmly Can Pigments Be Bonded to Cloth Fabrics?

By careful selection of the proper pigment, the correct form of the pigment particle, efficient dispersion in the binder, the use of binders of adequate tenacity and especially with the recommended curing, Aridye Textile Colors can be bound so firmly as to pass the most severe scrub tests.

What Are the Objections to Pigment-Printing or Dyeing?

The one most frequently mentioned is dry crocking. Objectionable crocking, however, is not inherent in the process but, if proper colors have been used, it is either the result of improper application or of inadequate curing. Of course, pigments are not recommended for deep shades that can only be achieved by using more pigment than can be properly bound by the binder. It is well to remember, however, that any pigment color that may rub off is inert—not a soluble dyestuff that will stain adjacent fabrics.

Is Pigment-Dyeing Being Used in War Fabrics Production?

Yes. Here are a few instances: Pigment-dyeing with Aridye Textile Coloring Materials is being used on O.D. Herringbone Twill. Over 25 million yards of camouflage cloth have been pigment-dyed by this patented Aridye method. 25 million yards of mosquito netting have also been dyed with fast-to-light O.D. pigments, and Aridye colors have been widely used on Sandbag cloth.

Does Pigment-Dyeing Meet Established Standards?

The high standards for fastness established by the textile industry are met and in many cases exceeded by pigment-dyeing with Aridye colors.

Do Textiles Dyed with Aridye Colors Meet Other Tests?

Yes. Besides wash-fastness and light-fastness (one line of colors withstands 300 hours in the Fadeometer) work fabrics dyed with Aridye colors have passed comparative tests covering Mildew Effectiveness, Resistance to Abrasion, Chlorine Retention, Air Porosity and Presence of Primary Irritating Substance. Copies of these reports are available.

What Is the Essential Character of Aridye Textile Colors?

Aridye colors for pigment-dyeing or pigment-printing are emulsions. Properly prepared pigments are dispersed in a solution of selected synthetic resins into which water is emulsified. Since these emulsions remain stable while being padded, there is no exhaustion of the bath. All components are taken up by the fabric in the same proportions.

What Is the Difference Between Pigment-Dyeing and Conventional Methods?

The former uses pigments, the latter soluble dyestuffs, and yet generally speaking, in one sense, most methods of coloring textiles employ pigments. Some develop the pigments on the cloth during the "dyeing" processing. Others disperse the pigments in binders and then apply them. The question is which method gives the fastest possible results or is most efficient for a particular purpose or is the least expensive.

Are These Pigment-Dyeing Materials Available?

Aridye Textile Coloring Materials for pigment-dyeing or pigment-printing are available now in a wide range of popular colors for essential civilian fabrics and to meet approved specifications for war fabrics.

Can Aridye Colors Be Used on Existing Equipment?

In most cases, yes. Some rearrangement of equipment or even additional equipment may be necessary to get the best results. This can be determined by a proper survey of plant facilities.

Are All of the "Bugs" Out of the Process?

No, although Aridye Textile Colors for pigment-printing have been in successful use for many years and for pigment-dyeing for the past year. The materials and methods of application are being continually improved. Aridye Corporation has recently been allowed patents on many of these improvements in the art of textile finishing. As pioneers in this development of pigment-printing and pigment-dyeing we recognize the responsibility for improving both the materials and methods of application by continuing research.

Does Pigment-Dyeing Cost More?

Yard for yard, pigment-dyeing with Aridye Textile Colors costs no more than other quality methods of dyeing. In many instances savings are effected.

Can Any Finisher Obtain a License?

No restrictions are being imposed to limit the process to a few plants. Most of the leading plants are licensed to apply Aridye Textile Colors and more licenses are being added to the list each week.

• • •

IMPORTANT: Satisfactory pigment-dyeing results can only be expected if the finisher follows the approved methods based on technical knowledge and production experience. Maximum fastness, for example, can only be obtained by adhering to the following:

The selection of technically correct pigment colors.

Proper application of the color to the cloth.

Adequate curing to effect the bond between the pigments and fibres.

We will be glad to discuss with a finisher any specific problem of applying pigments for printing or for dyeing.

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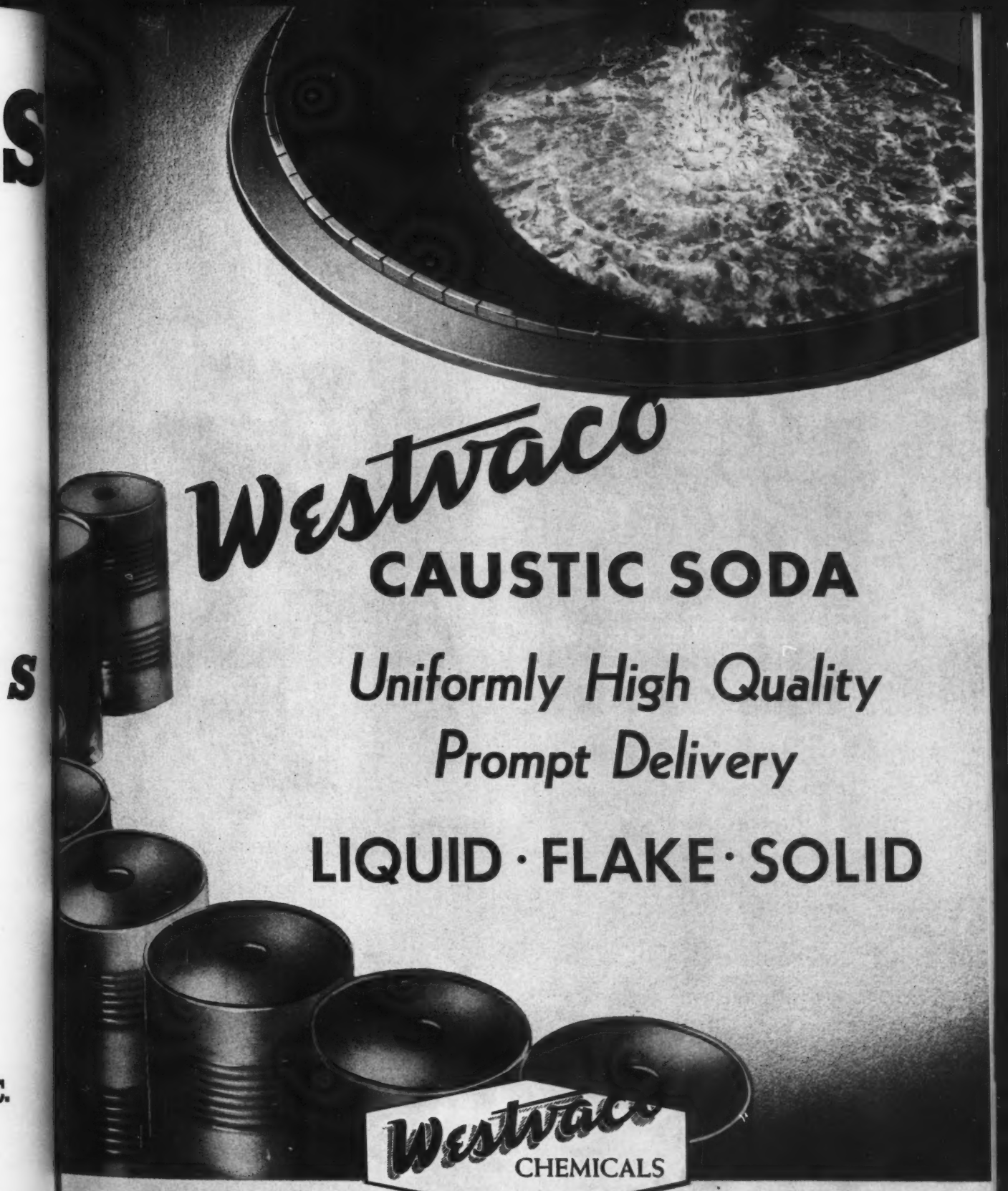

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Blue GDNN

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THE outstanding soluble vat color for producing bright Blues in any depth, of excellent fastness, is Indigosol Blue IBC. It is suitable for dyeing, padding and printing on cotton, linen or rayon (excepting acetate fibres) where maximum fastness is required.

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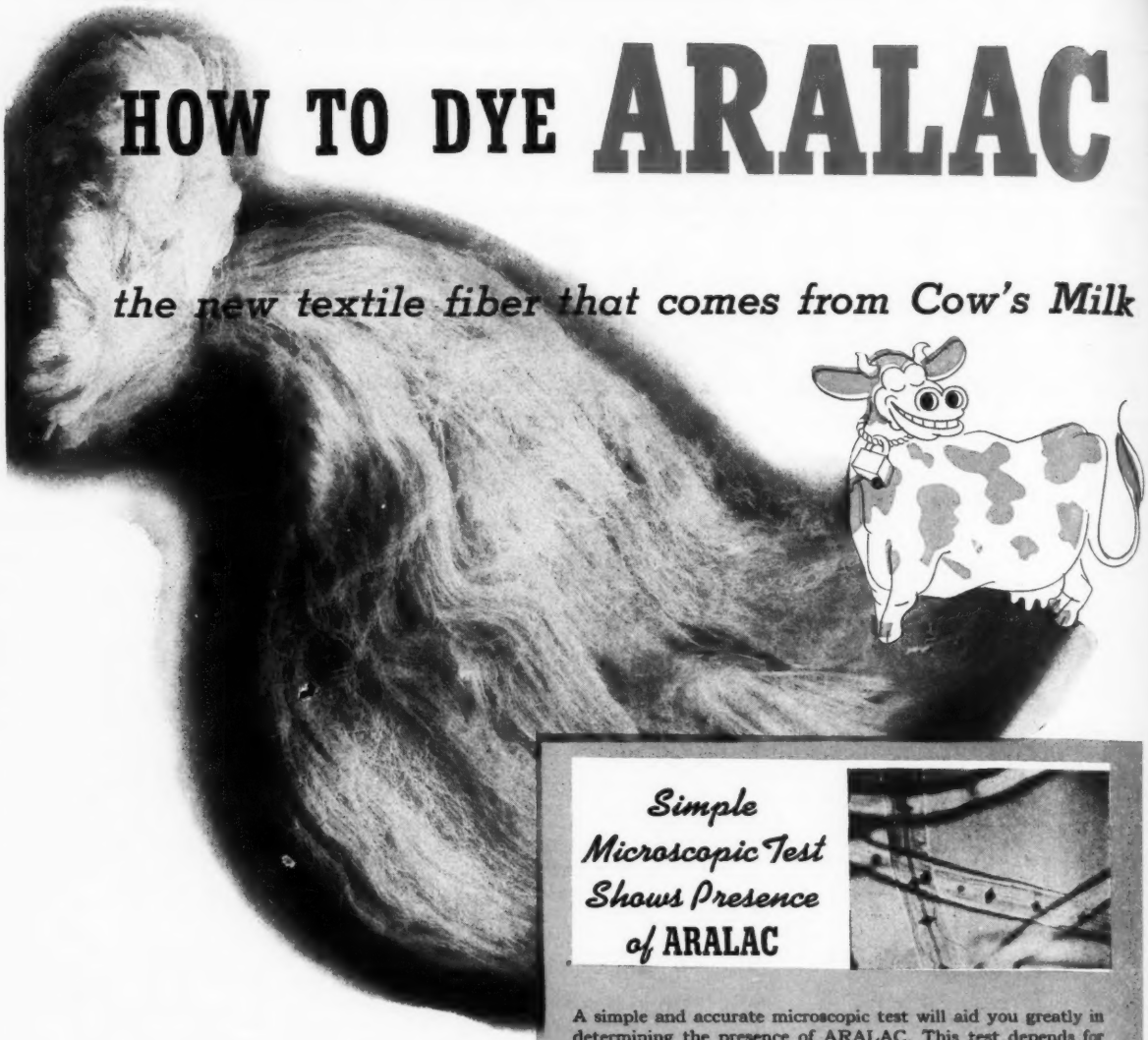
HOW TO DYE ARALAC

the new textile fiber that comes from Cow's Milk



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ARALAC, the recently developed protein fiber made from casein, is now being eyed with new interest by the textile industry.

Already ARALAC is being employed widely and satisfactorily in mixtures with wool, cotton, rayon, acetate, nylon, fur, in the manufacture of materials for coatings, suitings, dresses, neckties, scarfs, socks, interlinings, blankets, hats. And many other uses are in sight.

For some years now, CALCO technicians have been studying the application of dyestuff to this protein fiber, have been working to devise methods that bring about best results in dyeing and finishing operations.

Based on this extensive research, CALCO has prepared for your guidance and help a comprehensive and authoritative booklet, "The Processing of ARALAC And Other Protein Fibers." This valuable addition to your up-to-the-minute textile library will be sent you with our compliments, upon request.

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AMERICAN
DYESTUFF REPORTER

VOLUME 31 SEPTEMBER 28, 1942 NUMBER 20

Hearings on Proposed Trade Practice Rules Relating to the
COLOR FASTNESS OF TEXTILES

A TWO day hearing on the proposed trade practice rules relating to the color fastness of textiles was held by the Federal Trade Commission in New York at the Hotel Pennsylvania on September 9th and 10th. A previous hearing had been held in Washington on August 18th.

Henry Miller of the F.T.C. presided at the hearing and first heard consumer interests in behalf of the rules which are published on other pages in this issue. Without exception, however, the textile industry in all branches and divisions, registered opposition to the proposals.

Among the many associations who opposed the rules were the American Standards Association, the National Association of Finishers of Textile Fabrics, the Cotton Textile Institute, Inc., The Association of Cotton Textile Merchants of New York, the National Association of Wool Manufacturers, the National Federation of Textiles, the Textile Distributors Institute, the Rayon Yarn Producers Group, the National Retail Dry Goods Association, the Textile Fabrics Association, the Synthetic Organic Chemical Manufacturers, the Institute of Carpet Manufacturers, the Cotton Thread Institute, the National Textile Processors Guild, the National Knitted Outerwear Organization, the Linen Trade Association, American Institute of Laundering, the American Association of Textile Chemists and Colorists, and others. There were also many individuals who appeared to present their views on the matter.

Some of the briefs which were presented as well as other communications relating to the hearings, appear on the following pages. Excerpts from other briefs are also published.

The hearings were probably attended by the largest gatherings in the history of textile interests. In closing the hearings, Mr. Miller stated that he was impressed by the attendance, the largest at any commission hearing, and by the great amount of technical work that was behind the great number of briefs offered.

It is believed that it will be some time before the F.T.C. will take final action as the number of briefs submitted will require considerable study.

Communications from
American Association of Textile Chemists and Colorists

The following letter was forwarded to Mr. Henry Miller by the chairman of the research committee of the American Association of Textile Chemists and Colorists as representing the attitude of a large majority of the members of the association. Since the time of its writing, it has been found that the views expressed were representative of a far greater majority than originally supposed.

* * * *

August 13, 1942.

Mr. Henry Miller
Div. of Trade Practice Conferences
Federal Trade Commission Building
Constitution Ave., at 6th St.,
Washington, D. C.

Dear Mr. Miller:

I have read over the *"Proposed Trade Practice Rules Relating to the Colorfastness of Textiles,"* published by the Federal Trade Commission, Wednesday, August 5, 1942, with considerable interest and also with considerable fear that it will not be at all acceptable to a large proportion of the membership of the A.A.T.C.C.

Our feeling is further substantiated by the fact that we have already received correspondence from members, and also personal calls from others, entering objections to a number of the proposed regulations. We will endeavor to outline what some of these objections are. Furthermore, I have asked Mr. Ryberg to represent the A.A.T.C.C. at the hearing in Washington, Tuesday, August 18, 1942.

The first objection as we see it, is to the nomenclature of A, B, C, D, etc., as expressing different degrees of fastness or general value of a fabric. While we have never thought too favorably of the terms excellent, very good, good, fair and poor, we believe that these would be preferable to A, B, C, D. etc. The following facts taken directly from the Proposed Standards we believe will make this clear, but before we go into this with detail we wish to call your attention to the fact that through long experience it has been found that the public look upon Grade B in comparison with Grade A as being greatly inferior and in many instances would simply refuse to buy articles marked Grade B, whereas such fabrics possibly might have very good fastness properties and be wholly satisfactory in every respect. We are also afraid that articles of equal grade with those purchased in the past and perfectly satisfactory to the customer would now be turned down if designated as Grade B. This fact is illustrated by the

tendency in business to use the terms AA and AAA to designate superior quality and to keep away from the use of terms Grade A, B, C, etc. We believe that the element of psychology enters into this whole situation far more than has been appreciated up to the present time.

Going into specific views regarding the PROPOSED Standards:

I—COLORFASTNESS TO LIGHT

As previously expressed in the hearing in New York, April 10, we believe that by far the largest proportion of colored textile materials including shirtings, women's house dresses, tropical worsted suitings, sports wear, women's wear in general, etc., constitute the largest proportion of the colored merchandise sold. This class of materials will not, for the most part, withstand 40 hours in the Fade-Ometer. Furthermore, it is a fact that if you go beyond this point you immediately make it impossible for any textile manufacturer or finisher to put out anything like a complete line of fabrics which could be labeled to indicate that they would be wholly satisfactory for the purpose for which they were designed.

In this same connection if we take 80 hours as your minimum for Grade A—Fastness to Light, a fabric withstanding perfectly satisfactorily 75 hours of Fade-Ometer would have to be put into Grade B. Furthermore, if 80 hours were taken as the minimum for Grade A, the textile manufacturer would be unable to secure dyes that would meet this degree of fastness and a very large proportion of the material on the market today which is perfectly satisfactory would have to be eliminated if it was to be in any way guaranteed. Furthermore, I am not exaggerating when I say that 90 per cent of all satisfactory merchandise as far as coloring is concerned would not attain 80 hours of Fade-Ometer fastness. Should this 80 hours be accepted as Grade A minimum instead of 40 hours, we believe that it would be extremely unfair to textile manufacturers and finishers and furthermore would have a decided detrimental effect as far as the consumer is concerned. The result of this would be little if any labeling, and a decided tendency towards dyeings and prints which would be inferior to those on the market today.

II—COLORFASTNESS TO WASHING

You have indicated as Grade A Test, No. 4 Commercial Standard CS59-41, which is identical with Test No. 4 of the A.A.T.C.C., and Grade B, No. 3 Commercial Standard CS59-41, which is identical with Test No. 3 of the A.A.T.C.C., and as a matter of fact practically the only difference between Test No. 4 and Test No. 3, or in other words Grade A and Grade B, is that in Grade A test a small amount of chlorine has been added and supposedly this should not be used in high grade laundering of colored goods. You have therefore immediately branded as Grade B the highest type of fastness to washing that it is possible to give a fabric under any ordinary condition.

V—COLORFASTNESS TO PERSPIRATION

Regarding colorfastness to perspiration, we think we are safe in saying that 50 per cent of the fabrics on the market today that are satisfactory as far as fastness to perspiration is concerned, could not be classified as Grade A, therefore they must be labeled "not fast to perspiration." For this reason there should be intermediate grades of fastness as far as perspiration is concerned.

VI—COLORFASTNESS TO CROCKING

Regarding colorfastness to crocking, in its present form we believe that this is wholly unsatisfactory, not only to the manufacturer, but to the public, particularly in regard to woolens and worsteds. This applies to the test methods listed.

VII—COLORFASTNESS TO GAS

There is no opportunity at all for grading under this heading. In other words, if the finisher puts out a fabric which shows the slightest degree of gas fading, it would have to be marked "this fabric will not stand gas fading," whereas it might be faster in this respect than 90 per cent of the fabrics on the market.

While we might go into this whole matter with considerably more detail, we have preferred to make it concise and leave the details to further discussion if necessary. I think it is unfortunate that so short a notice has been given for this hearing, and furthermore, we believe it would have been better if the meeting had been scheduled for New York, not only because a much larger attendance would be possible, but on account of the congestion in Washington.

Very truly yours,

L. A. OLNEY,
Chairman of Research Committee, American Association of Textile Chemists and Colorists.

* * * *

September 10, 1942.

Federal Trade Commission,
Gentlemen:—

The American Association of Textile Chemists and Colorists has already submitted a brief which was read at the hearing on August 18th.

As co-sponsors with the American Society for Testing Materials of Committee L14 on Fastness of Colored Textiles of the American Standards Association, we have and are participating in the "Brief" presented for the American Standards Association by Dr. Jules Labarthe, Chairman of Commiteee L14. Any further recommendations to be made by the American Association of Textile Chemists and Colorists will undoubtedly be presented through the American Standards Association.

L. A. OLNEY,
Chairman of Research Committee, American Association of Textile Chemists and Colorists.

Statement of the Majority of Committee L14, American Standards Association

Presented by JULES LABARTHE, *Chairman*

COMMITTEE L14 of the American Standards Association is definitely in favor of Trade Practice Rules for the description of colored fabrics as to fastness of the dye to the principal color destroying service conditions.

The principle of such rules, applied in a practical manner, will encourage the use of informative labeling.

On Committee L14 the following national organizations and groups are represented:

American Assn. of Textile Chemists and Colorists	National Assn. of Dyers and Cleaners.
American Assn. of Textile Technologists	National Assn. of Finishers of Textile Fabrics.
American Assn. of University Women.	National Assn. of Wool Manufacturers.
American Council of Commercial Laboratories.	National Bureau of Standards.
American Home Economics Assn.	National Federation of Textiles, Inc.
American Institute of Laundering.	National Retail Dry Goods Assn.
American Society for Testing Materials.	Synthetic Organic Chemical Mfrs. Assn.
Cotton-Textile Institute.	Textile Fabrics Association.
Limited Price Variety Stores Assn.	U. S. Department of Agriculture.
Mail Order Association of America.	Office of Price Administration (liaison).

Committee L14 has made a careful study of the proposed rules issued by the commission under date of August 5, 1942.

The majority of the groups have come to the opinion that the

proposed rules as written will not only not encourage the practice of informative labeling, but, on the contrary, will defeat the end which the rules are intended to serve and will boomerang to the disadvantage of consumer, distributor, manufacturer, and processor alike. Furthermore, it is the belief of this majority that the proposed rules in their present form are unworkable and that they would make it more difficult to prevent misrepresentation under war-time conditions.

The committee has been considering constructive proposals intended to correct what the majority of the committee believed to be unworkable. However, there has not been time for the committee to reach complete agreement and it is therefore unable to speak for all the organizations represented on it. It is believed that most of these organizations will themselves present recommendations for revision of the proposed rules at the hearing scheduled for September 9.

Although the committee's program has not been completed, a meeting held on September 3, 1942 indicated the desirability of calling the attention of the Federal Trade Commission to certain parts of the proposed rules that are considered unworkable and also to present an alternative system of teminology for describing colorfastness of textiles. Comments and recommendations from those present at this meeting are detailed as follows:

1. GRADED TERMINOLOGY

The use of the Graded Terminology A—B—C—D, in conjunction with the exceptionally high standards of light fastness established for the top grading would tend to discourage informative labeling in comparison with a descriptive terminology for the same degree of colorfastness. For instance—drapery fabrics have been sold and have been satisfactory for use under the term "Sunfast" based on a standard fading-lamp test of 40 hours. A drapery manufacturer who had previously sold his draperies as "Sunfast" would under the provisions of the tentative rules be compelled to label these fabrics "Grade B Sunfastness," even though the same articles were being offered for sale. This would produce in the consumer's mind a belief that an inferior grade of sunfastness was being offered. The manufacturer would certainly prefer to depend upon a brand name without any representation of colorfastness, rather than seemingly to degrade his materials. A rayon fabric would be unlabeled, in comparison with one which could be labeled by such a term as "Color—Washable With Care," or, "Color—Hand Washable," if accompanied by washing instructions. A great number of similar comparisons can be made, but these are sufficient to establish the principle. Later, in this brief, there will be presented a simple descriptive terminology that our committee believes is workable and understandable.

2. RULE 7: DISCLOSURE OF COLORFASTNESS TO ALL COLOR-DESTROYING AGENTS WHEN DESIGNATIONS ARE FURNISHED FOR ONE AGENT

The provisions of Rule 7 would seem to require the mandatory disclosure of the degree of resistance to all color destroying agents to which the material might be subjected in use, if any representation is made regarding the colorfastness of a fabric or an article to any one of the color destroying agents.

It is presumed that these proposed trade practice rules were written mainly for the purpose of identifying the colorfastness of the fabricated article as sold to the ultimate consumer. In those cases where the fabric usage has been determined, a garment label might require information on only a few of the various color destroying agents to which the original material might have been subjected. For example, a fabric might be produced as a wash fabric but the definite end use is not necessarily determined at the point of manufacture. Under Rule 7, however, the colorfastness of the fabric to all possible color destroying agents would have to be furnished, even though some of the color destroying agents would not be of any importance in the service use of the article sold to the consumer.

A.A.T.C.C. Views Endorsed

HAROLD De WITT SMITH of A. M. Tenney Associates Inc., stated in part: "Our belief that the rules should agree with actual experience in serviceability also prompts us to endorse the specific views on the proposed rules regarding colorfastness to light, to washing, to perspiration, to crocking and to gas which were advanced by Dr. Louis A. Olney in the brief filed at the Federal trade Commission's hearing in Washington on August 18th, by the American Association of Textile Chemists and Colorists.

"That association has worked for many years on test methods and evaluation of color fastness, drawing on the experience of all branches of the textile industry which are engaged in the manufacture and sale of colored textiles, from the dyestuff manufacture to the retail store. The objections which it has raised are based on this vast accumulation of experience with the relation between laboratory tests and actual serviceability, and we believe that they are sound, and that a modification of the rules in the direction which that association has indicated would relate them more closely to the practical requirement of consumer satisfaction.

"Inasmuch as dyed acetate rayon is directly affected by Group VII 'Color fastness to gas,' Section 25, we fell justified in pointing out that this section constitutes, in our opinion, unfair discrimination against dyed acetate rayon on two grounds. First, it makes the labeling of a textile with respect to gas fading mandatory, whereas the other provisions for labeling in the rules are not mandatory. Second, no grades of fastness to gas are permitted. The mandatory labeling of a textile with a statement such as 'Color Subject to Fading from Atmospheric Gas' would be as unfair as a comparable mandatory labeling of a textile with a statement such as 'Color Subject to Fading from Light' instead of specifying a number of degrees of color fastness to light as now proposed.

"In order to correct this unfair discrimination we respectfully request that Section 25 be amended to define several degrees of fastness to gas fading, and we suggest that the tentative method for testing the fastness to atmospheric gases of dyes on cellulose acetate rayon given on page 274 of the 1941 Year Book of the American Association of Textile Chemists and Colorists, or subsequent amendments thereto, be used, to conform to those adopted for the other color fastness properties."

Information on colorfastness of fabrics or articles must in a great many cases come from the source of manufacture because with a very few exceptions, retail outlets are not equipped to obtain this information and, must depend upon their sources. It is the considered opinion of the majority of our committee that existing testing equipment and personnel are entirely inadequate to cope even partially with this requirement. This situation cannot be materially improved during the present emergency for neither trained personnel nor new testing equipment are available. Furthermore, the requirements for repeated washings in Section 7a of the proposed rules complicate this situation by a further overload on inadequate laboratory facilities.

3. TESTS

(a) Fiber Grouping

The present rules group all textile fibers under one test procedure for determining wash fastness. This is technically unsound and varies from normal home and laundry practice. A separate series of tests, on which research is still continuing, was the basis for original proposals by Committee L14 for fibers other than cotton and linen. Quality designations based on these tests were suggested. The F.T.C's proposed rules do not take into account the fact that the animal fibers of which wool is an example, and some of the synthetic fibers cannot withstand any washing test more severe than Test No. 2 for cotton. These fabrics would have to be labeled with a derogatory designation although the consumer knows them to be colorfast to washing and resistant to

Rayon Groups Against Regulations

IRENE BLUNT, secretary-treasurer of the National Federation of Textiles, Inc., stated that her association favored sound consumer education and fiber identification and wished to eliminate misunderstandings regarding color fastness. Letter gradings would not be satisfactory because of a lengthy educational effort which would be necessary for their use. She stated that terminology related to ratings of the National Bureau of Standards would be preferable.

Fred W. Morrison presented a brief on behalf of the rayon yarn producers industry and stated that the proposals were too all-inclusive and would confuse the public. The rules would tend to discourage any form of labeling and producers would push brands rather than rely on informative labels.

The Textile Distributors Institute, Inc., called for deferment of action and a more practical plan. They believed that the proposed rules were not clear as to whether color labeling was permissive or mandatory. They also brought out the fact that because of the lapse of the time between production of a fabric and ultimate sale it was difficult to guarantee fastness, particular as regards gas fading. It was also stated that it would be difficult to maintain uniformly high standards since colors which may be fast to gas fading may be sensitive to light.

fabric damage under milder washing conditions than those applied by her to colored cottons. Regenerated cellulose rayon has progressed to such an extent that it probably can be classed with cotton and linen in washability. It is believed that as far as requirements for fastness to color destroying agents (other than washing are concerned), they should apply equally to all textile fibers.

(b) Shrinkage and Colorfastness

Shrinkage and colorfastness (Rule 5) should not be combined unless the unqualified term "Washable" is used. To require a maximum shrinkage of 2 per cent for a fabric to bear the top quality designation for washfastness is to rule out many washfast articles in which shrinkage is not a factor in consumer satisfaction. For example, a colored Turkish towel could not be marked as being colorfast to washing. The shrinkage in a knitted wool garment is known to be variable depending on the conditions of handling so that to group shrinkage with its colorfastness is meaningless.

(c) Repeated Washings

The recommended repeated washing procedure (Par. 7a) is impractical from the standpoint of time and available equipment and personnel. Furthermore, it departs from the recognized standards followed by textile technologists and on which all existing washing colorfastness specifications are based.

(d) Light Fastness

The lower limit for the top quality designation as to light fastness should be 40 hours in the standard fading lamp now being established at the National Bureau of Standards and against which all other lamps may be calibrated. Experience over many years shows that 40-hour classification fabrics are satisfactory in consumer use. The 80-hour requirement for first quality designation is so high that very few fabrics could be given that rating, nor is such resistance to fading necessary except for special cases of long continued exposure to sunlight. Colors with which consumers have been satisfied for many years would have to be labeled with a lower grading thus giving a false impression of deterioration in quality when none has taken place. The result would be that the trade would be discouraged from informative labeling. This would be harmful to the retailer who would be unable to test so many samples and also to the consumer. Abandonment of factual labeling would give manufacturers little incentive to produce satisfactory fabrics capable of withstanding a 40-hour test or more, as compared with 20-hour or even 10-hour fabrics.

(e) Accepted Tests

The committee also wishes to point out that test procedures set forth in the proposed rules do not in all cases conform to methods given in the official publications of the American Association of Textile Chemists and Colorists, the American Society of Testing Materials and in Commercial Standard CS59-41 with which all textile technologists are familiar.

PROPOSED SYSTEM OF COLORFASTNESS TERMINOLOGY

The members of Committee L14, present at the meeting held on September 3, 1942, are agreed in recommending the following system of terminology for describing colorfastness of cottons, linens (and possibly rayons) to light and washing. This is a sample of the revisions now being made by the committee in its original proposal to the Commission, and covers the two color-destroying agents—washing and light—that are most important from the consumer standpoint. The sample is based on standard test procedures.

It is the opinion of the majority of the committee that a fair trade practice ruling is practical if it is based on standard test procedures with descriptive terminology of the quality of goods, with recognition of the practical aspects of testing, and with due regard to past consumer acceptance of goods manufacturers have been producing.

For the information of the Federal Trade Commission it should be pointed out that the following system of terminology, which is acceptable to majority of Committee L14, originated with groups that are represented on this committee. It is expected that several organizations will present similar recommendations to the committee for modification in the terminology given in the proposed Trade Practice Rules Relating to the Colorfastness of Textiles that were issued by the Commission on August 5, 1942.

SUGGESTED TERMS AND REQUIRED EXPLANATIONS FOR DESCRIBING COLOR FASTNESS TO LIGHT AND TO WASHING

Fastness to Light

For goods which pass Test, Section XI, CS59-41 carried to number of standard fading lamp hours indicated:

Term: Sunfast-Color Value 160, 200, 240, etc. (in multiples of 40).

Required Explanation: None.

*Selvage Stamp: Sunfast-Color Value 160, 200, 240, etc.

* * * *

For goods which pass Test No. 5, Section XI, CS59-41—80 hours standard fading lamp:

Term: Sunfast-Color Value 80.

Required Explanation: While all colors eventually fade, these colors are of a high degree of sunfastness and are satisfactory for any use except continuous outdoor exposure.

*Selvage Stamp: Sunfast-Color Value 80—See attached label.

* * * *

For goods which pass Test No. 3, Section XI, CS59-41—40 hours standard fading lamp:

Term: Sunfast-Color Value 40.

Required Explanation: While all colors eventually fade, these colors will be fully satisfactory for wearing apparel and indoor furnishing.

*Selvage Stamp: Sunfast-Color Value 40—see attached label.

* * * *

For goods which pass Test No. 2, Section XI, CS59-41—20 hours standard fading lamp:

Term: Sun Resistance—Moderate.

Required Explanation: These colors are satisfactory for general use where not subject to excessive exposure to sunlight. After washing, do not dry in direct sunlight.

*Selvage Stamp: None.

* * * *

For goods which pass Test No. 1, Section XI, CS59-41—10 hours standard fading lamp:

Term: Sun Resistance—Fair.

Required Explanation: These colors have a limited degree of sunfastness. Not recommended for continued use in sun. After washing, do not dry in direct sunlight.

*Selvage Stamp: None.

* * * *

Fastness to Washing

For goods which pass Test No. 4, Section VIII, CS59-41, 180° F.:

Term: Washfast Color or Fast to Washing Color or Boil Fast Color.

Required Explanation: No colors are absolutely fast. These colors will withstand repeated commercial or home launderings at high temperature if bleaching compounds are not used.

*Selvage Stamp: Washfast Color or Fast to Washing Color or Boil Fast Color—see label attached.

* * * *

For goods which pass Test No. 3, Section VIII, CS59-41, 160° F.:

Term: Washable Color or Color-Satisfactory Washability.

Required Explanation: While these colors are not of the highest degree of washfastness, they will withstand normal commercial or home launderings without boiling or the use of bleaching compounds.

*Selvage Stamp: Washable Color or Color-Satisfactory Washability—see label attached.

* * * *

For goods which pass Test No. 2, Section VIII, CS59-41, 120° F.:

Term: Color—Moderate Washability.

Required Explanation: These colors can be washed with a mild soap at temperatures not exceeding 120° F. without the use of alkaline or bleaching compounds.

*Selvage Stamp: None.

* * * *

For goods which pass Test No. 1, Section VIII, CS59-41, 105° F.:

Term: Color—Washable With Care.

Required Explanation: For best results wash these colors in lukewarm water not exceeding wrist heat with a mild soap and without alkaline or bleaching compounds.

*Selvage Stamp: None.

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*Suggested selvage markings are optional but should be confined to the two top grades.

The majority of the groups represented on the committee are of the opinion that this modified system of terminology combined with the above mentioned modifications of the proposed rules offers promise of a thoroughly workable set of rules. This sample is illustrative of the work in progress on the original Committee L14 proposal by which it will be brought closer to the spirit of the proposed F.T.C. Rules in the light of workable practice.

The majority of the groups represented in ASA Committee L14 believe that it will be easily possible by intensive work over a brief period to develop modifications of the proposed rules which would make them thoroughly practicable and workable. Such a development would encourage wider use of informative labeling and would be satisfactory to the great majority of the consumers, producers, converters, and distributors.

Hence, it is requested that ASA Committee L14 be permitted to complete the development of such modifications and that it be given until October 15, 1942 to file its recommendations and a complete labeling proposal with the Commission.

Statement by DR. ELVIN H. KILLHEFFER
Representing

Synthetic Organic Chemical Manufacturers' Association

THE Synthetic Organic Chemical Manufacturers' Association includes in its membership the manufacturers of the various dyestuffs used in the coloring of textiles and other materials. It has therefore a keen interest in any constructive steps that may be taken toward improving the quality of dyed textiles and in devising a system whereby purchasers may know what quality they buy.

On the other hand, dye manufacturers make and supply all classes of dyes for the great multiplicity of uses to which they are put, but they have no control of any sort over these uses and therefore are not directly responsible for the statements as to the fastness of the color in the finished textile.

This Association of dye manufacturers is in the position then, where it has considerable knowledge and understanding of the subject and a desire to be constructively helpful. With this background several observations are made.

First, as to the goal.

Rules which will enable purchasers of goods to recognize or identify quality are very desirable. It is only fair to say that much progress has already been made in the general direction by progressive manufacturers and merchandisers. This development has been a gradual one over a period of time. Lack of more rapid progress does not necessarily reflect any lack of desire to do the job but it does definitely reflect the complexity of the task. Nevertheless, there are lines of goods merchandised today which do give the consumer assurances as to what may be expected from the standpoint of quality.

It is to be hoped that promulgation of Trade Practice Rules by the Federal Trade Commission will greatly extend the lines so offered.

To accomplish this the Rules must be such as to be workable. Standards which are set so high as to be largely unrealizable will defeat their own purpose.

We are of the opinion that if all textiles measured up to the quality of the special lines already referred to there would be little if any public dissatisfaction with quality. This then would seem to be the practical point at which to start. Unfortunately, the proposed Rules would "demote," so to speak, the present quality lines on the market.

A set of rules that will discourage or prevent up-grading of inferior merchandise is very desirable. On the other hand, no constructive purpose is served by down-grading merchandise which today represents not only the best qualities available but also a quality which has been found satisfactory in use.

There is considerable misunderstanding about what can or cannot be accomplished with certain dyes and a word on that point may be helpful.

There are individual dyes which withstand light exposure much in excess of the proposed 40 hour Fade-Ometer test when dyed in full or heavy shades. Usually their ability to withstand light decreases as the strength or fullness of the dyed shade decreases. Thus a heavy navy blue will stand up much longer than a light shade of blue, *even though both dyeings are made with the identical dyestuff*. Furthermore, in the majority of cases dyed textiles are not color d with single dyestuffs. Usually combinations of several dyes are used to obtain the particular shades which are desired by, or are attractive to, ultimate purchasers. Thus one dye with outstanding fastness may not be the controlling factor.

Second, as to the need for such rules being accentuated by the necessity for conserving critical dyestuffs.

Sensible Rules Urged

EPHRAIM FREEDMAN, director of the Bureau of Standards of R. H. Macy & Co., Inc., urged "sensible" rules for color standards that will give the buyer a yardstick of value, provide an easily understood terminology, provide uniform classifications, will not lead the buyer to think a fabric unsatisfactory when it is satisfactory and will require labeling at the source of manufacture with equivalent information carried through to the consumer. He also stated that the shrinkage rules contained in the program have nothing to do with colorfastness and should be covered separately.

Rules Called Impractical

THE National Association of Finishers of Textiles Fabrics held that the proposed rules were impractical and unworkable. They predicted that if the rules were adopted descriptive marking would practically disappear. The association presented a set of standards which it recommended for terms and phraseology in regard to color fastness of woven cotton goods, in which a number of other leading textile associations had concurred. The association also recommended holding the rules in abeyance until after the war due to the demands being placed on technical manpower in the industry.

There must be some misunderstanding of the situation now existing to account for the expression at the top of page 2 of the proposed trade practice rules.

The actual situation is that except for a limited number of dyestuffs used for the production of Olive Drab, and therefore confined to a narrow spectrum, there is no shortage of the faster dyestuffs which would make the substitution of poorer qualities necessary on an appreciable scale.

Third—On page 3, Rule 3 (a), there probably is no dyestuff of sufficient color fastness to prevent *any and all* loss or change of color which can result from the several color destroying agencies applicable to the textile. This is recognized in rule 6 but it seems to us that nothing is accomplished by using the above language at any point. The very fastest dyes which can be used for the production of Olive Drab, for instance, are subject to some slight changes under certain conditions but the change is not great enough to detract from the value of the fabric.

Fourth—Page 3, Rule 5—This Association thinks it a mistake to confuse color fastness and shrinkage. There are enough complexities involved in dealing with color fastness. Shrinkage is itself important and should be dealt with. It is not a part of color fastness. A consumer may want information on shrinkage or on wearing qualities of a fabric or garment but neither is a function of color. Rejection of a textile fabric because it shrinks is not to say the color lacks fastness. Various textile fibers themselves have certain properties, a knowledge of which is important to the consumer. By no stretch of the imagination are such properties a part of color fastness.

Fifth—Color fastness to light.

This Association commends the method adopted for disclosing the differing degrees of fastness any of which may be of first grade, depending on the *use* to which the fabric is put. If, however, there is more than one A classification *depending on use,* there seems no good reason to decide arbitrarily on two namely, A-160 and A-80 when to do so rules out a class of materials which over a period of years has given satisfaction *in its proper field of use* and in which field there is no practical need for anything better.

If print goods do as a matter of fact give such satisfaction when they stand 40 hours, it seems an unnecessary hardship to now classify them as Grade B. Alternately, this Association suggests three Grade A classifications, A — AA — AAA or A-40, A-80, A-160. It should be comparatively simple to inform the public that each of the three will give satisfaction *in its intended field of use*. Our thinking is therefore in line with the recommendation of the American Standards Association on this same point. Such a system has the merit of providing in advance for faster colors as they may be developed.

Sixth—Page 8—Color fastness to washing—Section 7—subsection (a).

The Association appreciates the ideal of having one set of tests apply to all textile fibers. It is not practical, however, to apply the same washing method to wool or silk as is applied to cotton or linen. That seems elemental and everyone surely knows that the vigorous handling of cotton goods in laundering would spell ruin for a fine fabric of wool or silk. This Association is of the opinion that this is a clear-cut attempt at over-simplification.

In conclusion, we express our deep concern lest a very worthwhile objective be actually set back by premature action. Dye manufacturers are constantly working to produce better and faster dyes. That is true the world over and happily American manufacturers are not behind the procession. Our objectives for the production of progressively faster dyestuffs continue extremely high but at the same time we know that these developments usually require quite considerable time.

The same sort of time requirement is present in the establishment of trade practice rules, such as those under discussion. There is a great multiplicity of problems, all of which are highly technical. That is why the American Association of Textile Chemists & Colorists and the American Society for Testing Materials have already devoted a number of years to the study of the problem and the formulation of tests. It was for the purpose of co-ordinating these that the two Associations mentioned proposed both tests and nomenclature to the American Standards Association, where the matter is presently under study. We think the Commission should allow sufficient time for the completion of this work. Meantime, the Cotton Finishers Association have proposed a set of rules applicable to their lines, which in our opinion represents what is practicable and workable today.

September 8, 1942.

National Association of Wool Manufacturers

BRIEF

Presented by ARTHUR BESSE, *President*

THE National Association of Wool Manufacturers, representing a large majority of the manufacturers of wool textile fabrics in the United States, is in full accord with the aim sought to be accomplished by these proposed standards. Although wool fabrics are seldom represented as being of a character designed to withstand many of the tests outlined, there can be no valid objection to promulgating grading standards which are to be followed when specific representations concerning colorfastness of woolen and worsted fabrics are made.

One thing which should be borne in mind in considering these rules is the importance of making them as simple as possible from the standpoint of compliance. One of the larger worsted manufacturers initiated a program of labeling his fabrics as respects their colorfastness some three years ago. This voluntary enterprise was abandoned because of manufacturing complications and because of the large extra personnel required. The program as now outlined by the Commission will be attended with many difficulties and a voluminous amount of laboratory work. Since the technical departments of the manufacturers are overtaxed with work on many defense problems, and as additional technical men are not readily available, it would seem prudent to simplify the rules considerably or to delay the time for initiating the present extensive program.

Certain special difficulties arise in connection with wool products, due primarily to the fact that the tests outlined were designed almost solely for cotton and linen fabrics. In some cases the proposed tests are not appropriate for wool products; in fact certain of the tests are such as to permanently damage the wool fiber and destroy the usefulness of the product made therefrom even though the fabric might meet the prescribed tests on the score of colorfastness.

The following comments and suggestions arise quite largely from this circumstance. They are made primarily in reference to the grading of all-wool and wool mixture fabrics although it is possible that some of the suggestions made may be applicable as well to certain other textile fabrics.

I do not want to be represented either as endorsing or disapproving of the proposals for more radical changes already made at this hearing. Realizing that the rules are designed primarily

for fibers other than wool, we have endeavored to confine our suggestions to minor products without substantially altering the Commission's basic proposals.

The suggestions made are divided into two sections;—

I. *Those having to do with the general rules other than the tests themselves, and,*

II. *Those having to do with Rule 6 which prescribes the detailed tests.*

First we will outline our suggestions concerning the proposals embraced in sections other than Section 6.

I. SUGGESTIONS RELATING TO THE FRAMING OF THE GENERAL RULES

(1) It is thought that the object of Rule 3 would be somewhat clearer if stated thus:—

"... it is an unfair trade practice; (a) To use, as descriptive of any textile, the following terms and expressions otherwise than as provided and prescribed by Section 6 hereof:—"

(List terms as set forth under (a))

The rule as now stated seems to imply warrant for using for instance, the unqualified term "washfast" without the prescribed "Grade A." It is felt that in order to secure uniformity the rule should make any use of the terms dependent upon using the grade designations as well. The wording suggested above does this.

(2) The second paragraph of Rule 4 is subject to possible misinterpretation. It is not clear whether *some* vat dye must be used in producing each of several colors in a fabric, or whether no dye other than vat dye may be used therein. Also, since indigo and indigosol modifications are vat dyes, the wording should be expanded to take care of the use of the term "indigo." If it is desired that vat dyes are to be used exclusively when the term "vat" is employed, we believe the wording should be changed as follows:—

In the first paragraph under Rule 4, insert the word "indigo" after "Vat Colors."

Rewrite the second paragraph to read:— "It is an unfair trade practice to use the terms 'Vat,' 'Vat Dyes,' 'Vat Colors' 'Indigo' or 'Indigo Dye' or terms of similar import unless in fact nothing other than vat dyes, indigo or indigosol modifications were used in dyeing the textile, notwithstanding the fact that proper disclosure of the true colorfastness may have been made."

If it is desired to require representations as to the *proportion* of vat dyes utilized, the second paragraph should read:—

"It is an unfair trade practice to use the terms 'Vat,' 'Vat Dyes,' 'Vat Colors,' 'Indigo,' 'Indigo Dye' or terms of similar import unless the percentage of vat dyes or indigo or indigosol modifications in the total amount of dye used is indicated, notwithstanding the fact that proper disclosure of the true colorfastness may have been made."

(3) Rule 5 introduces the question of shrinkage into rules designed to cover the permanence of colors. This is a mistake and we believe all reference to shrinkage should be deleted from these particular rules.

The subject of shrinkage is an important one, but not one which can be covered as simply as proposed. For one thing, there is confusion of thought as between the terms "washable" and "unshrinkable." These terms, of course, are not synonymous. It is important that a shirt with a neckband not shrink when washed by a commercial laundry; it is perhaps less important with a hand towel. A wool bed blanket is in every sense "washable" but it is not "unshrinkable"; it must be washed in a particular manner and given particular treatment. The same is true of wool socks or wool underwear. It is manifestly not appropriate to provide that a product be termed "unwashable" because it will shrink in excess of 2 per cent under certain conditions, particularly when every housewife knows that products containing wool should not be subjected to the same treatment accorded washable cottons.

There is a somewhat amusing inconsistency between Rule 5 and Sections 7, 8, etc., of Rule 6, If a fabric is Grade B for washing or if it shrinks, say, 3 per cent, according to Rule 6 it should be labeled "Washability Grade B," whereas according to Rule 5 one is forbidden to imply that it is washable at all. This poses the problem of which rule we can violate with the smallest penalty. The shrinkage requirement should be eliminated as having no place in these rules. As stated, it would seem to prevent manufacturers from continuing to give special instructions to customers as to the proper way to wash blankets, socks, etc., since those instructions do "by implication represent that a blanket is washable."

It is universally recognized that shrinkage tolerances for certain wool products are of necessity far greater than would be appropriate for cotton goods; the two can hardly be handled by a single formula. It should also be pointed out that the scope of the rules is necessarily limited in such a way that white blankets, hosiery or undyed cotton or linen goods would not in any way be subject to the shrinkage limitation herein placed upon dyed products.

The tendency to shrink, the type of fabrics concerned, the kind of treatment accorded in washing all vary to such a degree as to complicate the matter of shrinkage and make it impracticable to cover the question of shrinkage in these rules even if it were otherwise appropriate to consolidate in one regulation rules relating both to permanence of dyes and shrinkability.

For the reasons stated, it is recommended that the words "or when subjected to such washing the textile will shrink excessively to the extent of more than 2 per cent" be eliminated.

(4) Rule 7 as worded appears to impose an obligation on the manufacturer to determine all possible end uses of his products. This is an impracticable requirement for wool manufacturers. Often products are not used for the purpose for which they were designed by the manufacturer. There is no objection to the requirement that the respective grades be indicated as respects each of the color changing agents against which the product is alleged to possess resistance. It is, however, entirely unreasonable to require that the lowest grade of any test be applied to all possible agents including those to which the manufacturer did not believe his product would be subjected. This requirement could safely be simplified and clarified if care is taken to make sure that grading is provided for as respects any color changing agents to which the textile product is actually represented as having appreciable resistance.

The following two suggestions are made:—

In subparagraph (a) delete the word "is" in the first line, and substitute the words "is expected to be."

Combine subparagraphs (b) and (c) and rewrite as follows:—

"(b) It is an unfair trade practice to suggest or infer that a grade of colorfastness applied to a particular color changing agent applies also to any other color

Rules Not Suitable for Carpet Industry

J. NEAL DOW submitted a brief for the Institute of Carpet Manufacturers of America in which it was stated that the rules proposed are impossible of application to carpets and rugs and that their technicians saw no means whereby the rules could be applied to their product. They asked that the rules be specifically amended to exempt carpets and rugs for the following reasons among others: the proposed rules do not recognize differences in use requirements of different types of textile materials; the proposed rules are based on tests and rating methods which may be suitable for some types of flat woven fabrics but are not suitable for soft pile floor coverings; the proposed rules are unduly severe when applied to soft pile floor coverings; the proposed rules would result in misleading the purchaser of pile floor coverings by emphasizing a relatively unimportant quality factor.

Rules Would Discourage Labeling

LEW HAHN of the National Retail Dry Goods Association believed that the proposed color fastness rules would discourage the informative labeling movement in textiles. He also advised that the regulations be held over until the end of the war in view of added costs and possibilities of unsettlement of ceiling prices. The proposal for A, B, C, D, etc.. designations was termed an attempt to oversimplify the problem.

changing agent when such is not the case or otherwise to utilize a grade designation in a way which would have the capacity or tendency to mislead or deceive."

II. DETAILED TESTS AS PRESCRIBED IN RULE 6

There are certain general suggestions concerning the set up of Rule 6 which should be mentioned before comments are in order concerning the specific tests set forth in the rule.

(1) At the end of each of the six separate types of tests provided for there are sections relating to textiles which fail satisfactorily to meet the lowest test specified. This requirement is thus repeated six times. It is recommended that Sections 6, 11, 14, 17, 20 and 24 be eliminated and replaced by a single new rule to follow the present Rule 6.

New Suggested Rule—

"No representations, either express or implied, concerning colorfastness to any particular color changing agent or agents may be made if the textile does not meet the test provided for the lowest grade specified under the paragraph or paragraphs relating to such color changing agent or agents."

(2) The tests prescribed in Rule 6 relate in most instances to tests set forth in Commercial Standard CS 59-41 with certain modifications. Additional modifications are now being proposed. It is recommended that while the references to CS 59-41 be retained the tests themselves be set forth in these Rules in order that all necessary information be available in a single document.

The following observations, comments and suggestions are made as respects the particular tests provided.

(3) Colorfastness to Light—Sections 1 to 6.

The difficulty in applying the tests suggested is due to the variation in results obtained by the use of a Fade-Ometer. Without detracting in any way from the value of such an instrument, it is a fact that in practice a wide variation occurs in the results obtained. This is due to the inconsistency of the lamps available, variations as between AC and DC current, to uneven voltages available in some localities, to variations in voltage as between different places and to differences in phases in AC circuits. The only way to correct for these variations would be to provide for comparative tests using standard samples which could be tested by the Fade-Ometer or, if such were not available, by other means.

Such a test is set forth at page 214 of the 1941 Year Book of the American Association of Textile Chemists and Colorists. It may be mentioned that not only has the A.A.T.C.C. reached the conclusion that light tests should contemplate comparison with a standard sample, but the same conclusion has been reached by similar scientific and government agencies in England and Germany.

It is suggested that the A.A.T.C.C. test be substituted for those provided in Sections 1 to 5 and grades established as follows:

Textiles which show no greater fading than Sample L 8	Grade AA
Textiles which show no greater fading than Sample L 5	Grade A
Textiles which show no greater fading than Sample L 3	Grade B
Textiles which show no greater fading than Sample L 1	Grade C

These suggested gradings correspond roughly to those in proposed Rule 6, but since they are based on a standard sample, their use would offset and eliminate the effect of the possible variations in the apparatus previously referred to.

NOTE:—The Standard samples L 1, L 3, L 5 and L 8 may be obtained for $1.00 per set from the Chairman, Research Committee, A.A.T.C.C., care of Lowell Textile Institute, Lowell, Mass.

The object of providing for an AA grade is to take care of awnings, beach umbrellas, flags, outdoor upholstery, etc., and at the same time make a Grade A available for textiles not designated for extended exposure, but having entirely satisfactory resistance to light fading under ordinary conditions.

(4) Colorfastness to Washing—Sections 7 to 10.

The colorfastness tests to washing are not applicable to woolen fabrics. Wool products subjected to soap, soda and chlorine at temperatures of from 120° to 180° will deteriorate seriously. The tests should clearly indicate that it is not proposed to treat woolens in that manner since to fail to so indicate is to invite a treatment of wool products which might cause serious injury.

Since wool products cannot withstand severe washing without deterioration, it is recognized that they are probably not entitled to a Grade A washing rating such as would be applied to washable goods. There should, however, be a test designated to provide a Grade B rating for wool products which may be washed occasionally. Such a rating will naturally suggest the necessity of using care in washing. The test, nevertheless, cannot provide for a water temperature as high as that specified for a similar rating on cottons and linens.

It is suggested that three grades—namely B, C and D be provided for wool textiles as follows:

2 Hours	Neutral Soap Solution—105°	Grade B
30 Minutes	Neutral Soap Solution—105°	Grade C
30 Minutes	Neutral Soap Solution— 90°	Grade D

The details of these tests, except for the time of the test and the temperature as specified above, should follow Section IX of CS 59-41, the procedure therein set forth being particularly designed for wool fabrics.

To adopt these suggestions the following changes in the Federal Trade Commission's Proposed Rules would be necessary:

(A) Subsection (a) of Section 7—after the words "applicable to all types of textiles" insert the words "other than woolens and worsteds." This is necessary in order to make it clear that no worsted or woolen fabric is to be graded A and also to eliminate the possibility of woolen or worsted products being subjected to washing at a temperature of 180°.

(B) Subsection (a) of Section 8. No change required.

(C) Subsection (a) of Section 9—Rewrite the last sentence of the section to correspond with subsection (a) of Section 8 as follows:

"For textiles other than cottons or linens said prescribed test shall be that specified as No. 2 test procedure in Section VIII of Commercial Standard CS 59-41, with the exception that the temperature of the water shall be 105° F. and the test shall run for 30 minutes."

(NOTE:) We are not specifically limiting the above to woolens and worsteds, since apparently all fabrics other than cottons and linens should be subject to this revised test. Because of using both Section VIII and IX of CS 59-41 an error has crept in since the tests for fabrics other than cottons and linens prescribes water at 105° for Grade B and 120° for Grade C. The above suggestion corrects this, providing for 105° in both cases.

(D) Subsection (a) of Section 10—Rewrite the end of the last sentence as follows:

" . . . with the exception that the temperature of the water shall be 90° for woolens and worsteds and 105° for other fabrics (not including cottons and linens) and the test run for 30 minutes."

(5) Colorfastness to Dry Cleaning—Sections 12 to 14.

The grading here provided appears unsatisfactory, at least as respects wool goods, in that no grading is provided except for fabrics which will stand both the dry cleaning, dry, and the dry cleaning, wet, processes. Many fabrics will stand the dry cleaning dry process and be perfectly satisfactory, but they are not such as to withstand the wet process. There are innumerable types of woolen fabrics in this category. It is felt that provision should be made for a proper rating of such fabrics. The particular suggestion here made is that products which will withstand both the wet and dry test procedures be labeled Grade A; that those which will withstand the dry process only be labeled Grade B. This would necessitate the following changes in wording:

(A) We have already suggested that Section 14 as written should be replaced by a new general rule. We suggest a new Section 14 (renumbered as may be required) to follow the present Section 13.

"Section 14—Grade B Colorfastness to Dry Cleaning—Textiles which show an appreciable change of color and an appreciable staining of the contacting white fabric when dry cleaned wet in accordance with the procedure outlined in CS 59-41 paragraph 18 (b), but which show no such appreciable change of color or staining of the contacting white fabric when dry cleaned dry in accordance with the procedure outlined in CS 59-41 paragraph 18 (a) may be designated with respect to colorfastness to dry cleaning as follows:

"'Grade B Colorfastness to Dry Cleaning,' or

"'Grade B Dry-Cleanability'."

(6) Colorfastness to Pressing—Sections 15 to 17.

We have no suggestions to offer concerning this test providing it is contemplated that the procedures to be followed are those set forth in Sections XII and XIII of CS 59-41. It is assumed that this reference was unintentionally omitted.

A distinction should be made (as it has been in CS 59-41) between the test for cottons and linens and that for wool and other fabrics. The test for woolen and worsted fabrics should be that outlined in CS 59-41, XIII subparagraphs 53 (a) and 53 (b).

(7) Colorfastness to Perspiration—Sections 18-20.

We have no particular suggestions as respects the proposed tests for colorfastness to perspiration.

(8) Colorfastness to Crocking—Sections 21 to 24.

Basing our opinion on experience with wool fabrics, we are inclined to suggest only one grading for colorfastness to crocking.

It would be our recommendation that for the one test the Munsell scale be used and the privilege of using soap and water for removal of the discoloration be removed.

The following changes would accomplish this:

Rewrite Section 21 as follows and eliminate the Sections following:

"Section 21—Grade A Colorfastness to Crocking (Rubbing): Textiles which show discoloration of the white contacting fabric of not more than No. 8 Munsell Neutral Value Scale may be designated with respect to colorfastness to crocking or rubbing as follows:

Grade A Colorfastness to Crocking (Rubbing), or Grade A Fastness of Color to Rubbing."

(9) Colorfastness to Gas—Section 25.

This section is deficient in that no type of gas is specified and no degree of concentration is indicated. Since the only recognized standard test so far developed is that of the A.A.T.C.C. relating to atmospheric gas (A.A.T.C.C.—1941 Yearbook Page 274) it is recommended that Section 25 be confined to the standard there set forth or the section eliminated. If the section is retained, it should be made clear that it is not intended that the representation, if made, applies to high concentrations of illuminating gas occasionally encountered in clothing factories or other similar establishments where illuminating gas is used to provide steam for pressing or other purposes.

* * * *

The above comments are respectfully submitted for the consideration of the Federal Trade Commission. We desire to reiterate that these suggestions are based upon the particular conditions surrounding the manufacture and merchandising of woolen and worsted fabrics and that they are not intentionally designed to affect the application of the proposed rules to other industries or other products.

Respectfully submitted,

NATIONAL ASSOCIATION OF WOOL MANUFACTURERS,

By Arthur Besse, President.

September 9, 1942.

Asks Workable Rules

THE Textile Fabrics Association in a statement presented by W. P. Pickett, president, urged that if rules for color fastness were adopted they should be made practical and workable. Part of the statement read "The proposed regulations of the Fedeeral Trade Commission may be theoretically possible, but are not practical to perform, and definitely could not be lived up to, with the result that, through necessity, merchandise would be sold without representation of any kind. Thus, the consumer would receive less information as to color fastness, whereas we, as an industry, are perfectly willing and eager to give such information, if practical rules can be devised for transmitting essential necessary information to the consumer."

Statement by H. M. CHASE, *Director of Research, Riverside & Dan River Cotton Mills, Inc.*

AN unbiased study of the "Proposed Trade Practice Rules Relating to the Color Fastness of Textiles," as published August 5, 1942, will, we believe, convince anyone that they are written entirely from the viewpoint of the consumer. In theory this seems perfectly logical, but from a practical standpoint they should, of course, take into account the problems encountered by the producer of textiles in his endeavor to conform.

The manufacturer is, we believe, in entire accord with the idea of protection against misleading statements in regard to his product. Protection of this sort benefits both the manufacturer and consumer, the former against unfair competition, and the latter against deception. This idea should be kept strictly in mind in reviewing these rules.

This, however, is a far cry from a situation which not only penalizes the manufacturer for failing to attain a strictly ideal standard but also reacts upon the consumer himself by limiting the infinite variety of colors, styles, and patterns from which he can choose today.

The leading characteristic of the American textile industry is variety and rapid change in style. The beautiful and constantly changing fabrics brought out by our designers and stylists each year can only be produced by the use of many and varied colors and fibers requiring literally thousands of different dyestuffs and chemicals applicable not only to wool, cotton, silk, and linen but to viscose rayon, acetate rayon, artificial wool, nylon, and an ever increasing number of synthetic fibers. It is safe to say that in the great majority of cases a fabric constructed with reasonable regard to its usage is discarded as out of style long before it has deteriorated seriously in color.

To meet this public demand and at the same time meet restrictions far more rigid and drastic than ever before contemplated is, for the fancy fabric manufacturer who prides himself on offering the very best values, practically an impossibility unless he is willing to brand his product as inferior in many respects to an arbitrary standard so rigid and so inflexible that to obtain the highest rating to which every manufacturer aspires his styles and patterns must be restricted to the narrowest range.

Washable Fabrics

MATTHEW O'BRIEN of the Celanese Corp. made some interesting remarks on the washability of fabrics. He said in part: "Who decides what makes a fabric washable? It is not the government agencies. It is the consumer. If she can wash a fabric or a garment satisfactorily, it is washable, regardless. As a matter of fact, the grades are given in the reverse order to consumers' needs. If she can cleanse a fabric at 105 degrees, that is fine. She doesn't have to boil her hands to do it. You might reverse the order and say that the lower the temperature a fabric can be cleansed, the better for the consumer. The technicians may subject a denim and a ninon to the same test, but the consumer will never realize that a ninon is grade C because it can't stand as high a temperature as a denim.

"There is too much emphasis on temperature.

"Anything should be graded as washable if the person so grading it can give washing directions to the consumer, indicating the range of temperature, the kind of soap and washing procedure which will permit the consumer to wash it and cleanse it without appreciable loss of color."

Mr. O'Brien also objected to the perspiration tests as being too severe stating that his firm had made linings that will last the life of the garment but that would not pass the proposed test.

In drafting a set of rules of this nature one can hardly expect anyone not versed in all phases of manufacturing, merchandising, and buying to realize that a standard which could be met on wool might be impossible on cotton and vice versa; that a standard which could be met on cotton would be impossible on silk; that a standard easily obtained on viscose would be out of the question on acetate rayon, and so on. All these and many more problems confront the manufacturer and consequently it is no more than fair that they should be taken into account in making rules.

It may be said in reply that the manufacturer should be willing to tell the truth. This is distinctly a specious argument. Consider, for example, the case of an Indigo Chambray (See Exhibit A) which is today being supplied in large quantities to the U. S. Navy for shirts. Indigo is the oldest and, incidentally, the cheapest vat dyestuff known. Its use dates back for thousands of years. Persistent efforts were made by the German dye industry prior to the first World War to replace it with vat dyestuffs of superior fastness but it held its own then and holds it today, in spite of the fact that under the application of the proposed rules it is of only moderate fastness to light and washing, is entirely destroyed by excess chlorine and is *notoriously* bad to crocking. In fact, the Chinese trade will not buy it unless it does crock. The *essential* truth about Indigo is that:

1. The public likes it and demands it.
2. It makes the cheapest and best low priced working shirt.
3. It fades on washing to a beautiful blue which remains blue as long as a trace of Indigo is left, a property possessed by no other vat color.

From a psychological standpoint, we can think of no surer way of destroying an industry than to label Indigo fabrics under the proposed rules.

Exhibits B-1 and B-2 are presented herewith to show the difference between a very cheap and a very expensive color. To all intents and purposes one is as good as the other, except for its fastness or lack of fastness to laundering with chlorine. Now it has long been our contention that the American consumer pays a huge tax not only for dyestuffs fast to chlorine but also through the progressive destruction of fabrics themselves when laundered with chlorine. There is no justification for the use of chlorine on anything but white goods or those colored patterns containing a large proportion of white. Chlorine can in no way be classed as a detergent and it has no effect on color other than to destroy it. The use of it in laundering colored goods is no more or less than the addition of a destructive chemical to the soap bath.

If a manufacturer has produced a fabric which stands Test No. 3 he has produced one which is entirely satisfactory to washing, although it may be destroyed by injurious chemicals. As far as that is concerned, any adjustments should be between the consumer and launderer rather than between consumer and manufacturer.

In other words, Grade A is practically no faster to washing than Grade B. It may be faster to chlorine and could be so designated, but chlorination is in no way related to the detergent process known as washing.

Exhibit C is a fabric containing a large percentage of acetate rayon.

To anyone familiar with the treating of acetate fabrics it will be obvious that it is well nigh impossible to use colors of all-round fastness to all agencies to which the fabric may conceivably be subjected.

Let us suppose that two manufacturers have the problem of producing this fabric. One, by laboratory research, develops a fabric which withstands light and dry cleaning to a high degree, the other selects the cheapest dyestuffs available without regard to anything but shade. Garments made from this fabric must naturally be subjected to light and to periodic cleaning. If, therefore, the first manufacturer proclaims his accomplishment by label he must, according to the proposed rules, qualify his statement to the effect that the fabric is of inferior fastness to various other agencies to which it might conceivably be subjected but which, as a matter of fact, it probably never will be. He would be far better off as far as sales appeal is concerned if he left the label off altogether, thus not only losing the benefit of his accomplishment but also depriving the consumer of means of distinguishing between a light fast fabric and one of poor fastness.

This is a very interesting exhibit. It will be observed that it is apparently fast to light up to 100 hours. Closer examination shows that the single thread of black acetate entertwined with the narrowest white stripe has entirely faded to a brown. This fading, doubtless, took place in 10 to 20 hours. Under the strict application of the proposed rules it would be an unfair trade practice to imply that this fabric is fast to 100 hours.

Aside from this technicality, the fastness ratings of this fabric read as follows:

Grade A-80 fastness to light
Color will not stand washing
Color will not withstand dry cleaning
Color will not stand pressing
Color will not withstand perspiration
Color will not stand rubbing or crocking

Yet as a matter of fact, millions of yards of this material have been used with perfect satisfaction to the consumer over a period of six years.

Exhibit D is a high grade vat dyestuff used in shirting with entire satisfaction. It will be noted, however, that it shows a slight but appreciable change after exposure in the Fade-Ometer for 20 hours and no further change for 176 hours. It also shows a slight but appreciable change in the wash test and in the wet crocking test.

To label this fabric Grade D to light, Grade B wash fastness, and Grade B color fastness to rubbing or crocking is most discouraging to the manufacturer and his only alternative is to leave it out of his line in spite of consumer demand. We confidently maintain that to any fair-minded observer this color is practically perfect and we know positively that it cannot be made more perfect with any vat dyestuff in existence.

Exhibit E is a wine shade of superlative fastness. We state with confidence that there is no known dyestuff which will produce this shade with equal fastness. Yet so drastic are the proposed rules that this fabric must be marked:

(Continued on page 483)

PROCEEDINGS OF THE
American Association of Textile Chemists and Colorists

SEPTEMBER 28, 1942

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Wiscassett Mills, Albemarle, N. C.

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WILLIAM R. MOORHOUSE, *Treasurer*
National Aniline Division, Allied Chemical & Dye Corp., Boston, Mass.

HAROLD C. CHAPIN, *Secretary*
Lowell Textile Institute, Lowell, Mass.

LOUIS A. OLNEY
President Emeritus and Chairman of the Research Committee
Lowell Textile Institute, Lowell, Mass.

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Members should notify the **Secretary** immediately of all address changes.

TWENTIETH ANNUAL OUTING, NORTHERN NEW ENGLAND SECTION

WITH some misgivings the Sectional Committee of the Northern New England Section decided to hold an Outing this year. This was held on Friday, June 5th, and because of war conditions and the easy accessibility of Andover, at the Andover Country Club.

Attendance exceeded expectation, reaching the near record total of 175 members and guests.

Perfect weather favoring, the links were thronged with eager aspirants, essaying the ancient and honorable game, despite Hole 2 with its valley hazard and Hole 11 with its pond. One foursome triumphantly announced that it had lost 14 balls. The experts were there also, who never lose a ball nor a stroke. The long distance drivers had a veritable field day, several driving 250 yards or more on Hole 10.

Hard by the ninth green the horse-shoe experts held forth, pitching numerous ringers to the delight and amazement of admiring bystanders.

The baseballers had their annual argument, and after about an hour of effort, physical and vocal, the game came to an end, all too soon,—i.e. for the losing side.

Dinner was served in the spacious rooms of the Club and proved to be the usual pleasant affair. Knots of friends gathered at the different tables to enjoy the excellent repast served by the Club, and the scene was enlivened by animated conversation, humor and occasional bursts of song.

A near miracle had occurred. Ninety per cent (90%) of those attending the dinner had sent in reservation cards!

John N. Dalton, Chairman, called the post-dinner meeting to order and introduced the Chairman of the Outing Committee, Wallace P. Heintz. "Wally" graciously introduced the other members of the Outing Committee and newly elected sectional officers, who as their names were called rose and took bows amidst tumultuous applause.

A feature of the evening was the presentation of a gift to John H. Grady, the retiring Treasurer, who had served the Section faithfully and efficiently for fifteen years.

The high point came with the turning over of the meeting to "Herby" Wieland and "Phil" Graham of the Golf Committee, who announced the winners and awarded the prizes. This was enhanced by the inclusion of $50 of War Savings Stamps, in packages of five and two dollars each.

The winning baseball team, including the umpire Harry Finlay, marched up proudly and received attractive Palm Beach ties as rewards of prowess.

The Outing Committee was made up as follows: Chairman, Wallace P. Heintz; Chairman, Ex-officio, John N. Dalton; Committee for Golf, Herbert E. Wieland, M. Phillips Graham, Harry M. Hartnett and Henry T. Rooney; Committee for Tennis, Hyman P. Selya; Committee for Horseshoes, Frank J. Robertson; Committee for Softball, Harry F. Finlay and Joseph E. Travers; Committee for Dinner, Delbert E. Ray, Harold N. Logan, Frank J. Rizzo and J. Milton Washburn, Jr.; Committee for Program, Edward S. Chapin.

Respectfully submitted,

EDWARD S. CHAPIN,
Secretary.

(The winners of the sports contests are listed in a book which has been lost somewhere between the Secretary and the Outing Committee. Diligent and desultory search for the past two months has failed to reveal it. This is doubtless the fault of the W.P.B. If and when it comes to light the list will be published in the DYESTUFF REPORTER to give the winners appropriate publicity.)

REPORT OF THE NOMINATING COMMITTEE

THE Councilors Representing Sections, in their capacity as Nominating Committee, have directed the Secretary to report the following nominations for the election of 1942:

For President—Thomas R. Smith.

For Vice-Presidents—Roland E. Derby and Charles A. Seibert.

Under the Constitution, additional nominations, each signed by at least twenty-five Senior members, filed with the Secretary not later than October eighth, will be given equal standing on the ballot.

Respectfully submitted,

HAROLD C. CHAPIN, *Secretary.*

REPRINTS ON MILDEWPROOFING

A FEW reprints of the Textile Foundation paper by Charles W. Hock, on the "Mildewproofing of Military Fabrics" are available from the office of the Textile Research Institute, Inc., 10 East 40th Street, New York, N. Y.

CALENDAR OF COMING EVENTS

Meeting, New York Section, October 2, 1942, Chemists' Club, New York, N. Y. Speaker: Earle M. Edgerton, Pacific Mills, "Causes and Effects of the Proposed Federal Trade Commission Colorfastness Rules."

Meeting, Philadelphia Section, October 9, 1942.

Council and Research Committee Meetings, Philadelphia, Pa., October 10, 1942.

MEMBERSHIP APPLICATIONS

Senior

Glenn Raymond Bellamy—Salesman, Ciba Co., Inc. Sponsors: J. D. Mosheim, M. W. Moore.

Louie M. C. Burkes—Production Manager, Muscogee Mfg. Co., Columbus, Ga. Sponsors: L. L. Baker, G. L. Dozier.

Laurence E. Carpenter—President, L. E. Carpenter Co., Newark, N. J. Sponsors: J. R. Redmond, E. C. Bertolet.

Donald Scott Collard — Resident Manager, Warwick Chemical Co., Rock Hill, S. C. Sponsor: S. Springer.

Edward D. Estes—Technical Service, Stein Hall & Co., Atlanta, Ga. Sponsors: L. L. Baker, E. Mauldin.

James H. Ewing—Research Chemist, North American Rayon Corp., Elizabethton, Tenn. Sponsors: A. H. Grimshaw, F. E. Busby.

M. Antoinette Falcone—Textile Chemist, Good Housekeeping Institute, New York, N. Y. Sponsors: H. R. Tisdale, J. E. Meili.

Stanley Fidell—Colorist, Krieger Color & Chemical Co., Los Angeles, Calif. Sponsor: B. Kapp.

James E. Flint—Dyer, Esmond Mills, Esmond, R. I. Sponsors: C. F. E. Sedgwick, H. V. King.

Henry C. Froehling—Manager, Rayon Tech. Sales Service, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Sponsor: C. A. Seibert.

Sidney J. Gluck—Technician and Designer, H. Warshow & Sons, Inc., New York, N. Y. Sponsor: P. Moran.

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Everett A. Robison — Philadelphia Manager, "Cotton," W. R. C. Smith Co., Philadelphia, Pa.

Herbert Edward Stevens—Purchasing Agent, Glenlyon Print Works, Plant C., Phillipsdale, R. I.

Applications for transfer to Senior membership: Christian Conradi, Joseph James Crowley, Gustave Warren Hakanson.

UNEMPLOYMENT REGISTER

Members of this association, who are without employment, should forward to the secretary a statement as to their qualifications and experience. This information will subsequently appear on these pages with an identifying key number. Employers are also requested to file with the American Dyestuff Reporter any vacancies which may occur in their business.—H. C. Chapin, Secretary, Lowell Textile Institute, Lowell, Mass.

NOTICE TO EMPLOYERS

Personal Histories and Employment Records of the following applicants are on file at the office of the American Dyestuff Reporter. Prospective employers may examine them without obligation.

Key: A—Laboratory and research; B—Dyeing or printing; C—Finishing; D—Sales; E—Instruction; F—Executive.

NOTE: PERSONS WHO HAVE OBTAINED EMPLOYMENT SHOULD NOTIFY THE SECRETARY OR THE AMERICAN DYESTUFF REPORTER AT ONCE.

A-1

Education—Graduate textile chemistry and dyeing course, Lowell Textile Institute, 1932. Special course in colloid chemistry at M.I.T.

Experience—Library work in spare time while attending school; five years as assistant chemist with knitting mill, duties consisting of testing and grading silk, testing of oils, soaps, dyes, finishes and other chemicals, making up specifications for various lines of hosiery and checking finished product, keeping a check on production costs, control of waste and irregulars, checking competing products and carrying on research to improve product and reduce costs. Woman; age 30; references.

A-2

Education—B.T.C., Lowell Textile Institute, 1933.

Experience—Textile chemist, cotton and rayon thread; agricultural chemist, protein, fat and mineral analysis; special Federal inspector on textiles, New York City; U. S. inspector, war department; chemist-spotter, dry cleaning experience. Age 32; married.

A-3

Education—B.S. in chemistry, Lehigh University.

Experience—Experimental engineer and analytical chemist, 8 mos.; assistant superintendent of silk corporation, assisted in planning and directing production, in charge of laboratory, technical work, personnel, purchasing, etc., 2 years; inspector of ordnance material, to the present. Seeks position as chemical engineer or chemist.

Age 25; single; references.

A-B-9

Education—Textile School Graduate; Alexander Hamilton Institute Business Course.

Experience—Mature, executive type of textile chemist and colorist with over twenty years' broad general experience in factory, laboratory, purchasing and all around business procedure. Good correspondent. Excellent personality. Wholesome appearance. Fine speaker. Literary and artistic ability. Real color sense. Possesses fund of factual information about material things in a wide range of industries. Capable of meeting the highest type of clientele and planning and directing the efforts of all types of personnel. Desires supervisory, contact, promotional or sales work. Willing to prove ability and versatility.

Age 44; American born; New England Yankee ancestry; married.

A-B-17

Education—Graduate of Franklin Union and Lowell Textile Institute, 1942.

Experience—1936 until present as assistant dyer in hosiery dye works. Experienced on full fashioned and anklet hosiery, handling wool, cotton, silk, rayon and nylon and combinations; has charge of weighing dyestuffs, testing and shade matching; experience with hosiery dyeing machines of all sizes. Seeks position as assistant dyer or laboratory technician.

Age 24; married; references.

A-B-18

Education—Graduate Philadelphia Textile School, 1940.

Experience—Has experience as assistant chemist and trouble shooter in silk dyeing and finishing plant; as manager of laundry store; and as printer and colorist in screen printing plant. Seeks position in laboratory and research, dyeing, printing or finishing.

Age 21; single; references.

A-B-C-F-3

Experience—Broad experience since 1906 as overseer of finishing, general researcher, trouble shooter, overseer of dyeing, general superintendent, mill manager. Experienced in woolen, worsted, cottons, unions and mixtures. Recently specialized in men's wear cottons. Seeks position as overseer of finishing or dyeing, assistant superintendent, superintendent or manager.

Age 53, married; references.

A-C-D-1

Education—Chemistry, Temple College, Philadelphia, evenings. Dyeing and textile chemistry, Philadelphia Textile School.

Experience—Employed about 18 years in textile mill, becoming chemist; 5 years as superintendent of finishing on silk and rayon ribbons; 10 years as salesman of chemicals and textile specialties in eastern Pennsylvania and parts of New Jersey; has some knowledge of the processing of all textiles. Seeks position as salesman with well known company.

Age 48; married.

B-10

Education—2 years chemistry, 2 years textile chemistry and dyeing, Lowell Textile Institute, evenings.

Experience—4½ years dyeing and bleaching hosiery, specializing in children's and infants' hose; 3 years assistant dyer, dyeing and bleaching cotton, mercerized and unmercerized, wool, wool-cotton, wool-rayon and wool-silk hose. Seeks position as second hand, assistant dyer or laboratory assistant in hosiery mill.

Age 27; single; references.

B-D-1

Education—High school graduate; textile chemistry, Textile Evening High School, New York City; accounting; typist.

Experience—from 1935 to present employed as colorist with screen printing plant in New York City. Experienced with all types of fibers and all types of dyes. Shade matching. Versed in accounting, typing, modern office procedure and sales promotion. Able assistant to busy executive. Age 46; single; references.

C-1

Experience—Experienced as assistant finisher, finisher and superintendent of finishing since 1923. Experience on automobile cloth, boucle overcoatings, high grade men's wear worsted, low grade woolens, medium grade plaid-back overcoatings, fleece finish overcoatings, Bolivias, kerseys, medium-grade men's piece dye suitings, uniform cloth, flannels, ladies' dress goods and coatings, government serge and elastique fabrics, marine wool, flannel shirtings.

Age 37; married, 3 children; references.

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COLOR FASTNESS HEARINGS

THE hearings on the proposed trade practice rules for color fastness of textiles conducted by the Federal Trade Commission in New York on September 9th and 10th found all branches of the textile industry, through its associations and individuals, presenting a united front in opposition.

There seemed to be several points brought out during the hearing to which the greatest number of objections were voiced. Among them were: (1) the use of the terms A, B, C, D, etc. in grading color-fastness; (2) disregard of the end use for which the fabric was intended; (3) inclusion of a shrinkage provision in the rules; (4) considered an inopportune time to introduce rules because of the war conditions, lack of sufficient testing equipment, and already over-worked technical staffs; (5) proposed rules form a threat to informative labeling already progressing in an orderly manner and a consequent return to strictly brand selling; (6) tests are impractical, costly and unworkable; (7) tests are unnecessarily severe; (8) grouping all textile fibers under one test procedure.

The use of the terms A, B, C, D, etc. would not present a true picture of the fabric's usefulness. Some articles that have been sold for years and performed satisfactory service would have to be marked at a lower classification than A. As brought out in the brief submitted by ASA committee L-14, drapery fabrics have been sold and have been satisfactory for use under the term "Sunfast," based on a standard fading lamp test of 40 hours. Under the provisions of the proposed rules it would be necessary to label such a fabric "Grade B Sunfastness" and this would create the thought in the consumer's mind that an inferior product were being offered. If a fabric gives satisfactory service, in the use for which it is intended, it seems unfair to label it B, C, or D.

The same thoughts would apply to the subject of the use for which a fabric is intended. It seems unnecessary to point out that whereas wash fastness may be important to one fabric it has no bearing at all as far as the usefulness of another fabric is concerned. The same is true in the case of fastness to other color destroying agencies.

Shrinkage and color fastness are two entirely different problems, and are in no way related. In many cases shrinkage is unimportant but where it is, it is already controlled by previous FTC regulations.

In order that the proposed tests be carried out, it would necessitate considerable shifting of equipment and technical personnel which might be better utilized in carrying on the war effort.

Many companies and many organizations have spent considerable time, effort and money to further informative labeling and to educate the consumer to look for such labels. It is believed by many that if this movement were allowed to continue in an orderly manner along established lines, progress would be much more rapid than if the proposed rules were adopted. It was pointed out by several at the hearings that the rules might cause the elimination of informative labels concerning color fastness altogether.

There is no question about the fact that in either war or peace times it is practically impossible to conduct all of the tests which would be necessary to observe the proposed rules. It would seem much better, for consumers also, if the present proposals were revised and efforts directed along lines which would supply standards which are practical and workable.

Grouping all fibers under one test procedure would provide many problems. As pointed out by A. J. Kellner of the U. S. Testing Co. at the hearings it is impractical to class all fibers in the same category as far as their ability to stand the washing tests is concerned: "For example, the washing test to classify a fabric as Grade A fastness is the number 4 test described in CS59-41....This procedure is undoubtedly not practical for woolens and rayons. ...In the case of rayons this test would mean that practically all of the present rayon fabrics on the market which have proven satisfactory could not be given Class A designation...."

Perhaps the most outstanding objection to the proposed rules and regulations as they are now drawn, and which would include all of the other objections, is that they were drafted without considering established trade practices.

The F.T.C. has now the advantage of the constructive criticism of a cross section of the entire textile industry and can re-draw the rules to fit the industry. The industry is not against informative labeling; it just wants something that is practical and workable.

EVERYBODY
EVERY PAYDAY
at least
10%
Buy War Bonds!

Proposed Trade Practice Rules Relating to the Colorfastness of Textiles

(As Released August 5, 1942, For Hearing August 18, 1942.)

(NOTE: *THESE RULES HAVE NOT BEEN APPROVED BY THE FEDERAL TRADE COMMISSION.* They are a draft of proposed rules which are made available to all interested or affected parties for their consideration and for submission of such views, suggestions, or objections as they may desire to present. Due consideration thereof will be given by the Commission before proceeding to final action on the proposed rules.)

GROUP I

Rule 1—Definitions: For purposes of of these rules and in their application the following shall apply as definitions of the respective terms mentioned:

(1) The term "Colorfastness" refers to and means the property or quality of the textile, or the dye or coloring matter used therein, to resist fading, bleeding, crocking, or change in color of either intensity or hue.

(2) The term "textile" (or "textiles") includes any textile fiber, yarn, thread, strand, cloth or fabric, and any product or article, or part of a product or article, made therefrom, which is in any respect dyed or colored.

Rule 2—Misrepresentation and Misbranding:

In the course of or in connection with selling, distributing or promoting the sale or distribution of any textile, it is an unfair trade practice to use or cause to be used any trade promotional literature, advertising matter, mark, brand, label, designation or representation, however disseminated or published, which directly, by implication or otherwise, has the capacity and tendency or effect of deceptively confusing or of misleading or deceiving the purchasing or consuming public in respect of the colorfastness of such textile or of the dye or coloring matter used therein, its resistance to fading, bleeding, staining, crocking, or loss or change of color, or which has a capacity and tendency or effect of misleading or deceiving in any other material respect.

Rule 3—Deceptive Use of Absolute Terms and Other Types of Expressions Respecting Colorfastness:

In the course of or in connection with selling, distributing, causing or promoting the sale or distribution of any textile, and to the end that misunderstanding, confusion and deception may be avoided and prevented therein, it is an unfair trade practice:

(a) To use, as descriptive of any textile, the term or representation "Sunfast," "Fast to Light," "Lightfast," "Guaranteed Fast Colors," "Fast Color," "Colorfast," "Will not fade," "Fadeproof," "Tubfast," "Wash-proof," "Washfast," "Colors fast to Washing," "Fast Prints," "Fast," "Fast dye," "Fast to Dry Cleaning," "Fast to Perspiration," "Fast to Rubbing," "Fast to Pressing," "Unfadable," or term or expression of similar import, when the textile does not have such sufficient colorfastness as will prevent any and all loss or change of color which can result from the several color-changing or color-affecting agencies applicable to the textile, (subject, however, to the provisions of Rule 6); or

(b) To use any such term, expression or representation in any other manner which is false, misleading or deceptive.

Rule 4—Use of Term "Vat Dyes," "Vat Colors," Etc.:

It is an unfair trade practice to use the term "Vat," "Vat Dyes," "Vat Colors" or representation of similar import as description of a textile, without making, in immediate conjunction therewith, clear and nondeceptive disclosure of the true colorfastness of the textile in accordance with the provisions of Rule 6, such nondisclosure having the capacity and tendency or effect of misleading or deceiving the purchasing or consuming public.

It is also an unfair trade practice to use the term "Vat," "Vat Dyes" or "Vat Colors," or representations of similar import, if in fact vat dyes have not been used in producing all colors in the textile, notwithstanding the fact that the above-mentioned disclosure of the true colorfastness may have been made.

Rule 5—Deceptive Use of the Term "Washable," "Tubbable," Etc.:

It is an unfair trade practice to represent, directly or by implication or otherwise, that any textile is "washable," "tubbable" or "launderable" when such textile is not of Grade A colorfastness to washing as prescribed in Rule 6, or when subjected to such washing the textile will shrink excessively to the extent of more than 2 per cent. (See Sections 7, 8, 9 and 10 of Rule 6 for other designations.)

Rule 6—Prescribed Method of Marking and Disclosing Colorfastness:

To the end that misunderstanding, confusion or deception of purchasers, and unfair or deceptive acts or practices may be eliminated or prevented in commerce, and to provide guidance to industry and trade as to the type of truthful marking which may be followed with propriety, and to promote fair competition and disclosure of information conducive to intelligent buying, the following type of marking, subject to the conditions specified herein, is prescribed as a proper method of designating colorfastness of textiles, and nothing in these rules shall be construed as prohibiting the application or use of such system of designating, describing or representing colorfastness of textiles whether through the use of labels, tags, brands, marks, advertisements, or otherwise:

I—COLORFASTNESS TO LIGHT

Section 1—Grade A-160 Colorfastness to Light: Textiles which will withstand the light test as prescribed in Section X of Commercial Standard CS59-41 to the extent of a minimum of 160 hours, or revised and approved test of equal or greater severity, and show no appreciable change in color thereunder, may be designated or described with respect to their colorfastness to light as follows:

"Grade A-160 Colorfastness to Light"
or
"Grade A-160 Fastness to Light'
or
"Grade A-160 Fastness to Sunlight"
or
"Grade A-160 Sunfastness"
or
"Grade A-160 Lightfastness"
or
"Sunfast Grade A-160"
or
"Lightfast Grade A-160"
or
"Fast to Light Grade A-160"

Subsection (a) of Section 1—Grades higher than A-160:

In the case of any textile having a substantially greater colorfastness to light than the foregoing Grade A-160 under the prescribed light test, such colorfastness to light may be designated in all respects the same as Grade A-160 colorfastness to light with the exception that in lieu of the figures "160" such figure above 160 may be used as shows the minimum number of hours the textile will withstand without appreciable change in color when tested under the above prescribed light test; provided, however, no number above 160 which is not a multiple of 40 shall be so used in connection with the mark Grade A. For example, if the textile will withstand 200 hours under the prescribed light test, without

appreciable change in color, the designation used may be as follows:

"Grade A-200—Colorfastness to Light'

or

"Grade A-200—Fastness to Light"

etc.

Section 2—Grade A-80 Colorfastness to Light: Subject to the following exceptions specified in Subsection (a) of this Section 2, textiles which will withstand, without appreciable change in color, a minimum of 80 hours under the light test prescribed in Section X of Commercial Standard CS59-41, or revised and approved test of equal or greater severity, may be designated or described with respect to their colorfastness to light as follows:

"Grade A-80 Colorfastness to Light"

or

"Grade A-80 Fastness to Light'

or

"Grade A-80 Fastness to Sunlight"

or

"Grade A-80 Sunfastness"

or

"Grade A-80 Lightfastness"

or

"Sunfast Grade A-80"

or

"Lightfast Grade A-80"

or

"Fast to Light Grade A-80"

Subsection (a) of Section 2—Required Explanation:

Whenever such designation is used in respect of such textiles as canvas, duck, twill, with or without painted or woven stripes, or other materials, which in their use are subjected or are likely to be subjected to severe exposure to light, such as, for example, in awnings, beach umbrellas, tents, flags, sunshades, outdoor upholstery, and other uses involving extensive exposure to sunlight or severe light fading conditions, there shall also be set forth in immediate conjunction with such designation as to colorfastness to light a statement pointing out directly and conspicuously that colorfastness of this grade, namely, Grade A-80, is not deemed generally sufficient to prevent appreciable fading under the conditions mentioned, as, for example:

"Colorfastness of this Grade A-80 is of high quality and will give fully satisfactory service except in the case of awnings, beach umbrellas, tents, outdoor upholstery, flags, sunshades, and articles made of canvas, duck, twill, or materials, which are exposed for extended periods of time to severe light fading conditions."

Section 3—Grade B Colorfastness to Light: (40 Hour Textiles): Textiles which will withstand, without appreciable change in color a minimum of 40 hours under light test prescribed in Section X of Commercial Standard CS59-41, or revised and approved test of equal or greater severity, may be designated or described with respect to colorfastness to light as follows:

"Grade B Colorfastness to Light"

or

"Grade B Fastness to Light"

or

"Grade B Fastness to Sunlight"

or

"Grade B Sunfastness"

or

"Grade B Lightfastness"

or

"Lightfastness Grade B"

Subsection (a) of Section 3—Explanatory Statement: When using any of the foregoing designations specified in Section 3 respecting Grade B colorfastness to light, there may be used in immediate conjunction therewith a nondeceptive explanatory statement to the following effect:

"Grade B colorfastness to light is deemed sufficient to give fully satisfactory service in normal usage of various textiles, except, however, in cases where the article is subjected to repeated exposure to direct sunlight or other strong light fading conditions."

Provided, however, if any of said Grade B designations specified in Section 3 are used with respect to awnings, beach umbrellas, tents, flags, sunshades, outdoor upholstery, and articles made of canvas, duck, twill, or materials which are exposed for extended periods of time to severe light fading conditions, or yarn or fabrics therefor, then said Grade B designation of colorfastness shall be accompanied in immediate conjunction therewith by a conspicuous and direct statement pointing out that Grade B colorfastness to light is not deemed sufficient to prevent fading of such products, as, for example:

"While Grade B colorfastness to light may be expected to give fully satisfactory service in certain materials, it is not considered to be of sufficiently high degree of colorfastness to prevent fading or to give fully satisfactory service in awnings, beach umbrellas, tents, outdoor upholstery, flags, sunshades, and any articles made of canvas, duck, twill, or other materials which are exposed for extended periods of time to severe light fading conditions."

Section 4—Grade C Colorfastness to Light: (20 Hour Textiles): Textiles which will withstand, without appreciable change in color, a minimum of 20 hours under light test prescribed in Section X of Commercial Standard CS59-41, or revised and approved test of equal or greater severity, may be designated or described with respect to colorfastness to light as follows:

"Grade C Colorfastness to Light"

or

"Grade C Fastness to Light"

or

"Grade C Fastness to Sunlight"

or

"Grade C Sunfastness"

or

"Grade C Lightfastness"

Subsection (a) of Section 4—Explanatory Statement: Whenever any of said Grade C Colorfastness to light designations are used in respect of a product which in its use is subjected to direct sunlight or to other light fading conditions of substantial strength, said designation shall be accompanied, conspicuously and in immediate conjunction therewith, by an explanatory statement to the following effect:

"Grade C colorfastness to light is not deemed of sufficiently high grade of colorfastness to give satisfactory service except where only moderate resistance to fading is desired or necessary."

[Interested or affected parties are invited to suggest such alternative explanatory statements as they might deem to be desirable in respect of this as well as in respect of any other provision.]

Section 5—Grade D Colorfastness to Light: (10 Hour Textiles): Textiles which will withstand, without appreciable change in color, a minimum of 10 hours under light test prescribed in Section X of Commercial Standard CS59-41, or revised and approved test of equal or greater severity, may be designated or described with respect to colorfastness to light as follows:

"Grade D Colorfastness to Light"

or

"Grade D Fastness to Light"

or

"Grade D Fastness to Sunlight"

or

"Grade D Lightfastness"

Provided, however, that each of said designations when used is accompanied conspicuously by an explanation to the following effect:

"May be satisfactory only where very little fastness to light is desired or necessary."

Section 6—Less Than 10 Hour Textiles: Textiles which cannot withstand the light test in Section X of Commercial Standard CS59-41, to the extent of at least 10 hours are deemed to be so subject to light fading or change in color as not to have a substantial degree of colorfastness to light. Therefore, textiles which will not withstand a minimum of 10 hours under such test shall not be represented or designated directly or indirectly as having any substantial degree of colorfastness. If designations or representations, directly or by implication or otherwise, are made as to colorfastness of such textiles to light, the product shall be designated as "Unsatisfactory Colorfastness to Light," or "Will Fade When Exposed to Light," or "Poor Colorfastness in Light," or by other designation which clearly and conspicuously shows that the product is without substantial degree of colorfastness and that it will fade or change color when exposed to light.

II—COLORFASTNESS TO WASHING (OR LAUNDERING)

Section 7—Grade A Colorfastness to Washing (or Laundering): Textiles which show no appreciable change in color and no appreciable staining of contacting white fabric, or of attached white sample, when washed or laundered in accordance with or under conditions as severe as the prescribed Grade A washing test specified below in Subsection (a) of this Section 7, may be designated with respect to colorfastness to washing or laundering as follows:

"Grade A Colorfastness to Washing (or Laundering)"

or

"Washfastness Grade A"

or

"Grade A Washfastness"

or

"Launderability of Color Grade A"

or

"Grade A Color Launderability"

[See Rule 5 regarding the term "washable," etc.]

Subsection (a) of Section 7—Prescribed Test for Grade A Colorfastness to Washing (or Laundering): The prescribed test above referred to for Grade A colorfastness to washing (or laundering) shall be that specified as "No. 4 test procedure" for cottons and linens in Section VIII of Commercial Standard CS59-41, or revised and approved test of equal or greater severity. Although such test as specified in CS59-41 relates to cottons and linens, it shall be applicable to all types of textiles for purposes of determining under these rules the Grade A colorfastness to washing (or laundering), and shall be subject to the following:

Repeated Washings: In the case, however, of textiles colored or dyed with pigment dyes or coloring materials, the prescribed test shall be the same as above specified in Subsection (a) of this Section but *repeated five times,* or otherwise rendered equally as severe as such five repetitions of the test procedure. Also, in respect of textiles which are colored with dye or coloring material other than pigment, if such are subject to fading or change in color by reason of repeated washings during the consumer uses to which the textile is put and such liability to fading is not revealed except by several repetitions of the prescribed test procedure, then such test shall be repeated as the case may require, not exceeding five repetitions, or otherwise rendered equally as severe as such five repetitions.

Subsection (b) of Section 7—Explanatory Statement Which May Be Added to Grade A Designations of Colorfastness to Washing: If, however, any textiles coming within the above specified Grade A colorfastness to washing (or laundering) will withstand said laundering or prescribed Grade A test even with the use of excess chlorine and repeated drying in direct sunlight, then there may be added to such designation, "Grade A Colorfastness to Washing," an explanatory statement to the following effect:

"Will withstand added chlorine and repeated drying in direct sunlight."

Subsection (c) of Section 7—Washing Instructions: Designations in respect to colorfastness to washing and washability should be accompanied by truthful and effective washing instructions which will point out the conditions in washing which should be avoided as harmful and which will aid the consumer to receive maximum service from the product. In relation to Grade A colorfastness to washing such instructions should point out that the use of excess chlorine and of repeated dryings in direct sunlight must be avoided in order to prevent possibilities of change in color.

[Interested or affected parties are invited to present draft of suggested washing instructions which they may deem appropriate.]

Section 8—Grade B Colorfastness to Washing (or Laundering): Textiles which show no appreciable change in color and no appreciable staining of contacting white fabric, or of attached white sample, when washed or laundered in accordance with or under conditions as severe as the prescribed Grade B washing test specified below in Subsection (a) of Section 8 may be designated with respect to the colorfastness to washing or laundering as follows:

"Grade B Colorfastness to Washing (or Laundering)"

or

"Launderability of Color, Grade B"

or

"Grade B Launderability of Color"

or

"Grade B Washfastness"

[Interested or affected parties are invited to present draft of suggested washing instructions which they may deem appropriate and which will point out the conditions in washing which should be avoided as harmful and which will aid the consumer to receive maximum service from the product.]

Subsection (a) of Section 8—Prescribed Grade B Washing Test: The prescribed test specified in Section 8 for Grade B colorfastness to washing or laundering shall be that specified as "No. 3 test procedure" in Section VIII of Commercial Standard CS59-41, for application to cottons or linens, or revised and approved test of equal or greater severity. For textiles other than cottons or linens said prescribed test shall be that specified in Section IX of Commercial Standard CS59-41, with the exception that the temperature of the water shall be 105° F. and test shall be run for two hours, or revised and approved test of equal or greater severity, subject to the following:

Repeated Washings: The same provisions regarding repeated washings as are set out in Subsection (a) of Section 7 shall also be applicable under this Section 8.

Subsection (b) of Section 8—Washing Instructions: Designations in respect to colorfastness to washing and washability should be accompanied by washing instructions which will point out the conditions in washing which should be avoided as harmful and which will aid the consumer to receive maximum service from the product. In relation to Grade B colorfastness to washing, such instructions should point out that this grade of colorfastness to washing will withstand normal washing only where no chlorine is present in soap or water, where boiling or hot water is not used, and when not dried in direct sunlight.

[Interested or affected parties are invited to present draft of such washing instructions as they may deem appropriate.]

Section 9—Grade C Colorfastness to Washing (or Laundering):[1] Textiles which show no appreciable change in color and no appreciable staining of contacting white fabric, or of attached

[1]As to washing instructions required to accompany Grade C colorfastness to washing designations, interested or affected parties are invited to present such drafts thereof as they may deem appropriate or which will point out the conditions in washing which should be avoided as harmful, such as indicating that this Grade C colorfastness will withstand only careful, moderate washing when hot water above certain temperatures is not used and no alkali or chlorine is present in soap or water and when not dried in direct sunlight.

white sample, when washed or laundered in accordance with or under conditions as severe as the prescribed Grade C washing test specified below in Subsection (a) of Section 9, may be designated with respect to colorfastness to washing or laundering as follows:

"Grade C Colorfastness to Washing (or Laundering)"

or

"Launderability of Color, Grade C"

or

"Washability of Color, Grade C"

or

"Grade C Washfastness"

Subsection (a) of Section 9—Prescribed Test for Grade C Colorfastness to Washing (or Laundering): The prescribed test specified in Section 9 for Grade C colorfastness to washing shall be that specified as "No. 2 test procedure" in Section VIII of Commercial Standard CS59-41, or revised and approved test of equal or greater severity. While such test is for cottons or linens, it shall be the practical test applicable to all textiles for purposes of determining their Grade C colorfastness to washing or laundering under these rules.

Section 10—Grade D Colorfastness to Washing (or Laundering): Textiles showing no appreciable change in color and no appreciable staining of contacting white fabric, or attached white sample, when washed or laundered in accordance with or under conditions as severe as the prescribed Grade D washing test specified below in Subsection (a) of Section 10, may be designated with respect to colorfastness to washing or laundering as follows:

"Grade D Colorfastness to Washing (or Laundering)"

or

"Launderability of Color Grade D"

or

"Washability of Color Grade D"

Subsection (a) of Section 10—Prescribed Test for Grade D Colorfastness to Washing (or Laundering): The prescribed test specified in Section 10 for Grade D colorfastness to washing and laundering shall be that specified as "No. 1 test procedure" in Section VIII of Commercial Standard CS59-41 in respect of cottons and linens. In respect of textiles other than cottons and linens, the prescribed test for such Grade D colorfastness to washing or laundering shall be that specified in Section IX of Commercial Standard CS59-41 with the exception that the temperature of the water shall be 105° F. and test run for 30 minutes, or in either case a revised and approved test of equal or greater severity.

Subsection (b) of Section 10—Washing Instructions:—Designations in respect to colorfastness to washing and washability should be accompanied by washing instructions which will point out the conditions in washing which should be avoided as harmful and which will aid the consumer to receive maximum service from the product. In relation to Grade D colorfastness to washing, such instructions should point out that the color will not withstand outdoor drying, or any alkali or chlorine in soap or water, nor more than luke warm water.

[Interested or affected parties are invited to present draft of such washing instructions as they may deem appropriate.]

Section 11—Textiles Having Less Than Grade D Colorfastness to Washing or Laundering: Textiles which do not have such sufficient degree of colorfastness to washing or laundering as to have a Grade D or better colorfastness to washing or laundering are deemed so subject to fading or change in color when washed or laundered as not to have a substantial degree of colorfastness to washing or laundering. Therefore, such textiles shall not be represented or designated directly or indirectly as having any degree of such colorfastness. If any representations, directly or by implication or otherwise, are made as to colorfastness of such textiles to washing or laundering, the product shall be designated as "Color not Washable," or "Unsatisfactory Colorfastness to Washing," or "Color Will Not Stand Washing," or by other designation which clearly and conspicuously shows that the product is without substantial degree of such colorfastness and will fade or bleed if washed or laundered. If such colors likewise will not stand dry cleaning, this fact should also be disclosed with such designation, to prevent misunderstanding and deception.

III—COLORFASTNESS TO DRY CLEANING

Section 12—Scope of Term "Dry Cleaning": The term "dry cleaning" as herein used shall be construed as embracing all types of dry cleaning, including the so-called "dry cleaning, dry" and "dry cleaning, wet" methods.

Section 13—Grade A Colorfastness to Dry Cleaning: Textiles which show no appreciable change in color and no appreciable staining of contacting white fabric, or of white test cloth, when dry cleaned in accordance with or under conditions as severe as the prescribed Grade A dry cleaning test specified below in Subsection (a) of this Section 13, may be designated with respect to colorfastness to dry cleaning as follows:

"Grade A Colorfastness to Dry Cleaning"

or

"Color Dry-cleanable"

or

"Grade A Dry-cleanability"

[Interested or affected parties who deem it desirable to have an intermediate grade of colorfastness to dry cleaning are invited to present proposed drafts of provisions for such intermediate grade and specification of appropriate test therefor.]

Subsection (a) of Section 13—Prescribed Test for Grade A Colorfastness to Dry Cleaning: The prescribed test specified in Section 13 for Grade A colorfastness to dry cleaning shall be that specified as "Cleaning, Wet, Procedure" in Section VI of Commercial Standard CS59-41, or revised and approved test of equal or greater severity.

Section 14—Textiles Having Less Than Above Grade of Colorfastness to Dry Cleaning: Textiles which do not have sufficient degree of colorfastness to dry cleaning as to meet the requirements for foregoing grade of colorfastness to dry cleaning are not deemed to have sufficient resistance to fading or change of color in dry cleaning to constitute a substantial degree of colorfastness to dry cleaning. Therefore, such textiles shall not be represented or designated directly or indirectly as having any degree of such colorfastness. If any representations, directly or by implication or otherwise, are made as to colorfastness of such textiles to dry cleaning, the products shall be designated as "Color Not Dry Cleanable," or "Will Fade When Dry Cleaned," or "Color Will Not Stand Dry Cleaning," or by other designation which clearly and conspicuously shows that the product is without substantial degree of colorfastness to dry cleaning and will fade or bleed if subjected to dry cleaning.

IV—COLORFASTNESS TO PRESSING (DRY OR WET)

Section 15—Scope of Term "Pressing": The term "pressing" as herein used shall be construed as embracing all types of pressing, including the so-called "dry pressing" and "wet pressing" methods.

Section 16—Grade A Colorfastness to Pressing: Textiles which show no appreciable change in color and no appreciable staining of contacting white fabric when pressed in accordance with or under conditions as severe as the prescribed Grade A colorfastness to pressing test specified below in Subsection (a) of this Section 16, may be designated with respect to colorfastness to pressing as follows:

"Grade A Colorfastness to Pressing"

or

"Fastness of Color to Pressing, Grade A"

or

"Grade A Fastness of Color to Pressing"

[Interested or affected parties who deem it desirable to have

an intermediate grade of colorfastness to pressing are invited to present proposed drafts of provisions for such intermediate grade and specification of appropriate test therefor.]

Section 17—Textiles Having Less Than Above Grade of Colorfastness to Pressing: Textiles which do not have such sufficient degree of colorfastness to pressing as to meet the above specified requirements for colorfastness to pressing are not deemed to be sufficiently resistant to fading or change in color in pressing as to have a substantial degree of colorfastness to pressing. Therefore, such textiles shall not be represented or designated directly or indirectly as having any degree of colorfastness. If any representations, directly or by implication or otherwise, are made as to colorfastness of such textiles to pressing, the product shall be designated by such designation as "Color Will Not Stand Pressing," or "Unsatisfactory Colorfastness to Pressing," or "Will Fade When Pressed" or by other designation which clearly and conspicuously shows that the product is without substantial degree of colorfastness and will fade or change color when pressed.

V—COLORFASTNESS TO PERSPIRATION

Section 18 — Scope of Term "Perspiration": The term "perspiration" as herein used shall be construed in its broad sense as embracing all human perspiration, including so-called normal perspiration, acid perspiration, and alkaline perspiration.

Section 19—Grade A Colorfastness to Perspiration: Textiles which show no appreciable change in color and no appreciable staining of contacting white fabric when subjected to the prescribed Grade A test for colorfastness to perspiration specified below in Subsection (a) of this Section 19 or to conditions of equal or greater severity, may be designated with respect to colorfastness to perspiration as follows:

"Grade A Colorfastness to Perspiration"

or

"Will Not Fade From Perspiration"

or

"Colorfast to Perspiration"

Subsection (a) of Section 19—Prescribed Test for Grade A Colorfastness to Perspiration: The prescribed test specified in Section 19 for Grade A colorfastness to perspiration shall be that prescribed in Section XI of Commercial Standard CS59-41 using both reagents therein specified and the procedure therefor, or revised and approved test of equal or greater severity.

[Interested or affected parties who deem it desirable to have an intermediate grade of colorfastness to perspiration are invited to present proposed drafts of provisions for such intermediate grade and specification of appropriate test therefor.]

Section 20—Textiles Having Less Than Above Grade of Colorfastness to Perspiration: Textiles which do not have such sufficient degree of colorfastness to perspiration as to meet the foregoing requirements for colorfastness to perspiration are not deemed to have a substantial degree of colorfastness to perspiration. Therefore, such textiles shall not be designated or represented, directly or indirectly, as having any degree of such colorfastness. If any representations, directly or by implication or otherwise, are made as to colorfastness of such textiles to perspiration, the product shall be designated as "Color Will Not Withstand Perspiration," or "Unsatisfactory Colorfastness to Perspiration," or by other designation which clearly and unequivocally shows that the product is without substantial degree of such colorfastness and will fade or bleed from perspiration.

VI—COLORFASTNESS TO CROCKING (RUBBING)

Section 21—Grade A Colorfastness to Crocking (Rubbing): Textiles which show no appreciable discoloration of contacting white fabric when subjected to the prescribed Grade A colorfastness to crocking test specified below in subsection (a) of this Section 21 or to conditions as severe as those encountered in the test, may be designated with respect to colorfastness to crocking or rubbing as follows:

"Grade A Colorfastness to Crocking (Rubbing)"

or

"Grade A Fastness of Color to Rubbing"

Subsection (a) of Section 21—Prescribed Test for Grade A Colorfastness to Crocking or Rubbing: The prescribed test specified in Section 21 for Grade A colorfastness to crocking or rubbing shall be that specified in Section VII in Commercial Standard CS59-41, or revised and approved test of equal or greater severity.

Section 22—Grade B Colorfastness to Crocking (Rubbing): Textiles which show discoloration of white contacting fabric of not more than No. 8 Munsell Neutral Value Scale, but removable with soap and water, may be designated with respect to colorfastness to crocking or rubbing as follows:

"Grade B Colorfastness to Crocking (Rubbing)"

or

"Grade B Fastness of Color to Rubbing"

Subsection (a) of Section 22—Prescribed Test for Grade B Colorfastness to Crocking or Rubbing: The prescribed test specified in Section 22 hereof for Grade B colorfastness to crocking or rubbing shall be that specified in Section VII of Commercial Standard CS59-41, or revised and approved test of equal or greater severity.

Section 23—Grade C Colorfastness to Crocking or Rubbing: Textiles which show a limited discoloration of contacting white fabric of more than No. 8 Munsell Neutral Value Scale, but removable with soap and water, when subjected to the prescribed test below for Grade C colorfastness to crocking or rubbing or to conditions as severe as such prescribed test, may be designated with respect to colorfastness to crocking or rubbing as follows:

"Grade C Colorfastness to Crocking (Rubbing)"

or

"Grade C Fastness of Color to Rubbing"

Subsection (a) of Section 23—Prescribed Test for Grade C Colorfastness to Crocking or Rubbing: The prescribed test specified in Section 23 hereof for Grade C colorfastness to crocking or rubbing shall be that specified in Section VII of Commercial Standard CS59-41, or revised, and approved test of equal or greater severity.

Section 24—Textiles Having Less Than Grade C Colorfastness to Crocking or Rubbing: Textiles which do not have such sufficient degree of colorfastness to crocking or rubbing as to have a Grade C or better colorfastness to crocking or rubbing are deemed so subject to fading or change of color due to crocking or rubbing as not to have a substantial degree of such colorfastness. Therefore, such textiles shall not be represented or designated, directly or indirectly, as having any degree of such colorfastness. If any representations, directly or by implication or otherwise, are made as to colorfastness of such textiles to crocking or rubbing, the product shall be designated as "Unsatisfactory Colorfastness to Rubbing (Crocking)," or "Color Will Not Withstand Rubbing or Crocking," or by other designation which clearly and conspicuously shows that the product is without substantial degree of such colorfastness and is subject to fading or bleeding from crocking or rubbing.

VII—COLORFASTNESS TO GAS

Section 25—In respect of textiles the color or dye of which is subject to gas fading, that is, fading or appreciable change in color due to gases present in the atmosphere or otherwise contacting such textiles when used, the purchaser thereof should be informed by those placing such textiles on the market or otherwise selling, promoting the sale of, or distributing the same, that said textiles are subject to gas fading, in order that purchasers and consumers may not be misled or deceived by concealment or nondisclosure of the product's liability to gas fading. It is an unfair practice to sell, offer for sale, or promote the sale or distribution of such textiles without clear and nondeceptive disclosure of such gas fading properties to which the color or dye in the product is subject, such concealment or nondisclosure having the capacity

and tendency of resulting in deception of the purchasing or consuming public.

Disclosure of any textile's liability to gas fading should be made by stamp, tag, label, or other mark attached to the product revealing such gas fading properties by clear and nondeceptive statement, as for example:

"Color Subject to Fading from Atmospheric Gas"

or

"Color Subject to Gas Fading"

Rule 7—Omission of Colorfastness Designations in Certain Respects While Supplying Them in Other Respects:

(a) Where the textile in its uses is subjected to two or more color-changing agents, such as light, washing, dry cleaning, pressing, crocking, perspiration, etc., the respective grade of colorfastness to each of the agents encountered in the use of the textile should be given.

(b) Where the colorfastness to only one or more color-changing agents is mentioned but not all to which the textile is subjected in its use, there shall be used the mark or designation of the lowest of the several applicable grades of colorfastness unless all applicable grades of colorfastness are shown and such other steps are taken as may be necessary to avoid deception.

(c) It is an unfair trade practice to fail to disclose such additional information or to fail to use the lowest grade mark in the circumstances specified in these rules, such practice having the capacity and tendency to mislead or deceive the purchasing or consuming public.

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Color Fastness Hearings—

(Continued from page 472)

Grade B wash fastness
Color will not withstand rubbing or crocking
Color will not stand dry cleaning

This shade is in strong demand by the consumer. It stands 280 hours to light without change and can practically be washed indefinitely with a barely noticeable effect on the attached white. Crocking is noticeable but not objectionable. It is a credit to any manufacturer and we submit it for inspection.

Exhibit F is a fancy shirting. This is composed of three shades of blue all dyed with the same dyestuff and of very narrow stripes of gray, each gray stripe consisting of two threads or "ends." Tests on one of the blues are included in the Exhibit. Incidentally, we feel that this blue is superlative in every respect. Yet as the difference between the original and the No. 4 wash test is visible it must be rated as B to washing.

Now the two ends of gray are rated as 20 hours to light and must be marked Grade D Fastness to Light. Yet an examination of the gray tests included in the Exhibit shows that after 160 hours it is still so strong that no one but a trained colorist would detect the effect on the pattern. We would point out that this pattern is eminently satisfactory but under the proposed rules would now be dropped from a superlative rating to as low as the proposed Grade D. Bearing in mind that expert inspectors are very particular about decorative effects, the question arises "How shall this pattern be graded to avoid mis-branding and also to avoid possible claims." We must leave this question unanswered.

In this connection it can be confidently asserted that colored yarn woven shirting manufacturers have always voluntarily striven to produce the very best possible product and have ever been alert to make any change however expensive it might be to meet changing conditions. Take for example the comparatively new process of Trubenizing, a process which gives to a collar permanent stiffness without starch. Prior to the advent of this process Naphthol Wines were universally used as among the very fastest dyestuffs to light and washing. The Trubenizing process however caused noticeable bleeding of Naphthol Colors due to the solvents used, and immediately the shirting manufacturers substituted vat colors at not less than two or three times the expense to themselves.

This policy has resulted in the acceptance over many years by retailer and consumer of colored yarn woven shirtings without question as being entirely satisfactory.

The psychology of such drastic rules cannot be anything but injurious to the industry. The rules seem to assume that the consumer is entirely misinformed and that for his protection an elaborate system of alphabetical grading is necessary. We submit that the average consumer will either be confused by this system or will disregard it and use his own judgment or follow his own likes and dislikes.

The prohibition against using such designations as Lightfast, Washfast, Fast to Dry Cleaning, etc., is entirely at variance with the American spirit of advertising. If we produce a fabric which is washfast, we want to tell the world about it, not simply mark it Grade A. How much simpler, and at the same time in line with this spirit, it would be to simply define the term Washfast and to state when it can be used and when not. A few such terms properly defined and properly used would cover the entire territory.

We might go further and show various instances in the proposed rules in which the conditions governing the construction and design of the fabric have been entirely left out of consideration, such as, for example, Rule 5, which prohibits the use of words like "launderable" if the textile shrinks more than 2 per cent. A colored border sheet should in our opinion, as long as laundries are permitted to use Chlorine in colored goods, be labelled "launderable with Chlorine" or "launderable without Chlorine," which briefly and succinctly covers the entire ground and protects the consumer against buying a sheet colored with fugitive dyestuffs. As to shrinkage, every housewife knows that it will shrink and that it is made in various sizes to suit the conditions. If it were shrunk by the manufacturer, she would simply pay a higher price for exactly the same article which she possessed after its first washing. The same is true of towels, bedspreads, wash cloths and numerous other articles.

Rule 7 contains a sweeping provision against gas fading which will effectually eliminate the decoration of any garment with even a fine pin stripe of acetate for every manufacturer knows that there is no acetate dyestuff which is entirely immune to any and all gases, whether "atmospheric or otherwise" and when further, there is no accepted test for gas fading and further still, no laboratory could possibly guarantee freedom from gas fading without knowing specifically what gases were in question.

In view of the above brief analysis, it is our conviction that the proposed rules do not and cannot meet the conditions confronting the industry. They are in essence punitive rather than constructive and we feel sure that your honorable body will recognize and appreciate our position when we make an earnest appeal that they be entirely re-written by a committee including consumer, merchant and manufacturer.

Such a committee is already in existence. It has for over seven years painstakingly and laboriously, with the sacrifice of much time and effort, developed the methods of *testing and reporting* published by the U. S. Department of Commerce and the National Bureau of Standards under CS 59-41.

The proposed rules of trade practice have recognized throughout

Color Labeling Would Be Abandoned

PAUL B. HALSTEAD, secretary-treasurer of the Cotton Textile Instite, brought out that much progress had been made in color education in the cotton industry but that further progress would follow faster if it were allowed to proceed along established lines. He stated that the proposed rules were extremely severe and that the technical staffs of the cotton mills were already under a heavy strain in devising and producing fabrics for the armed forces. It was the feeling of this association that the commission's proposals were so drastic as to result in the abandonment of color labeling on cotton goods altogether.

War Effort Would Suffer

W. RAY BELL, president of the Association of Textile Merchants of New York, stated that tests required by the proposals would necessitate using manpower and equipment that are essential to the war effort. He also emphasized that the rules were not applicable to all fabrics and mixtures and that consumer requirements vary according to the use for which the fabric is intended.

these methods of testing, but have disregarded throughout the recommended methods of designation.

This committee has the entire confidence of the colored woven goods manufacturers, as evidenced by the impressive list of acceptors. We maintain that no body of consumers, merchants and manufacturers is as well equipped as this one to draft rules which shall be fair to both consumer and manufacturer and at the same time stimulating and encouraging to those who honestly desire to prevent misrepresentation and unfair trade practices and to carry the American Textile Industry to heights never before attained.

Respectfully submitted,
RIVERSIDE & DAN RIVER COTTON MILLS, Incorporated.
By
H. M. Chase, Director of Research.

Determination of AVAILABLE CHLORINE in Solutions Containing Textone

JAMES F. WHITE
Mathieson Alkali Works, Inc.

THE use of Textone for bleaching textiles will probably require changes in the methods of analysis of the bleaching baths. Sodium chlorite is the active bleaching agent contained in Textone. It will not react with arsenite, which is one common means of determining hypochlorite. It can be determined by the use of potassium iodide and thiosulfate. If Textone is the sole bleaching agent present in the bath this one determination is sufficient. Frequently hypochlorite is used to "activate" the Textone. Both determinations are then necessary to ascertain the concentrations of bleaching chemicals.

While chlorite and hypochlorite are very different in their bleaching action, they are closely related in their chemical reactions. The exact details of the analytical methods, therefore, become of great importance. For routine control it is fortunate that the methods are not complicated. In special studies, where, for example, it is desired to know how efficiently the available chlorine is being used in bleaching, additional determinations are necessary.

Individually the various analytical titrations yield little information concerning the solutions. The desired values are usually obtained by subtraction of analytical quantities. Therefore, the various titrations will be discussed first. The calculations based upon them will be grouped in a separate section. These analytical methods are suitable for use with the solid chemicals and their various solutions so that the size of sample will not be specified in the description of the analytical methods.

1. TOTAL AVAILABLE CHLORINE

Thiosulfate (Thio A)

This determination includes chlorite, hypochlorite and chlorine dioxide. For the single substances it is the only determination which need be made.

Method: Add 20 ml. 10 per cent potassium iodide solution to the sample and acidify with 30 per cent acetic acid. (If alkalinity is to be determined use an excess of standard hydrochloric acid in place of the acetic acid.) With a chlorite solution no iodine is liberated before acidification. This serves as presumptive evidence of the absence of hypochlorite. Titrate with standard N/10 sodium thiosulfate solution adding starch as an indicator when the iodine is almost destroyed.

Solutions: N/10 Sodium Thiosulfate. Dissolve about 26.5 g. $Na_2S_2O_3.5H_2O$ for each liter of solution. The solution will be slightly stronger than N/10 and can be diluted if desired.

Solid iodine is used for standardization. For many purposes it is sufficient to dissolve 0.4-0.6 g. of pure resublimed iodine in potassium iodide solution, dilute and titrate. More accurate results can be attained by the method of Popoff and Whitman[1] which uses a special weighing bottle.

$$\frac{\text{wt. of } I_2 \times 1000}{126.92 \times \text{ml. } Na_2S_2O_3} = \text{N of } Na_2S_2O_3$$

Starch Indicator. 0.5 per cent solution. 10 g. of soluble starch is made into a paste with a little water and poured into 2 l. of boiling water. Boil for 2 minutes and pour into hot brown glass bottles. If the solution is not clear, filter before bottling. 2 ml. is used in each titration. In order to secure a good color change at the end point, it is desirable to try starches from several different sources and select the best.

10 per cent Potassium Iodide. 100 g. potassium iodide dissolved in 1 l. water.

Note: If the sample is strongly alkaline a more definite end point is secured if 1:1 hydrochloric acid is used to neutralize most of the alkalinity. Otherwise, the sodium acetate-acetic acid mixture will buffer the solution at too high a pH.

2. HYPOCHLORITE DETERMINATION

Arsenite-Iodine (As_2O_3-I_2)

An approximate knowledge of the hypochlorite content is necessary before making the arsenite-iodine determination. If this is not known from the history of the sample, a preliminary titration using arsenite equivalent to the thiosulfate is desirable.

The reaction of arsenite with hypochlorite should take

place in alkaline solution. No chlorine dioxide should be present. This may require that the sample be added to a dilute sodium hydroxide solution. As hypochlorite reacts with some reducing agents, such as formaldehyde, only in alkaline solution, the use of alkali may cause error in the analysis of used bleaching baths.

Method: Sufficient N/10 arsenite solution is added to the sample to provide a slight excess. After stirring, the solution is saturated with sodium bicarbonate. This solid should be present in excess. If the sample is strongly alkaline, this requires the addition of considerable bicarbonate even after an insoluble solid appears. Add 2 ml. starch indicator and titrate the excess arsenite with N/10 iodine solution. If more than 1 ml. of iodine solution is required, the determination should be repeated using less N/10 arsenite solution. A faint color is a better end point than a deep blue. Chlorite may liberate iodine from potassium iodide so that the concentration is kept low by limiting the back titration.

Solutions: N/10 Arsenite. 5 g. of arsenic trioxide (As_2O_3) and 15 g. of sodium carbonate (Na_2CO_3) are used for each liter of solution. Dissolve the sodium carbonate in about 70 ml. water (per l. of solution) and add the arsenic trioxide. Heat the solution, care being taken that the temperature does not exceed 60° C. Solution is slow and considerable residue settles out. Dilute, filter and make up to 1 l.

The arsenite solution may be standardized against solid iodine in a solution saturated with sodium bicarbonate using the methods mentioned for the standardization of sodium thiosulfate. It can also be standardized by comparison with the standard iodine solution. 1 g. of potassium iodide is placed in a flask and 20-25 ml. of the standard iodine solution are added. 4-5 g. sodium bicarbonate are added so that the solid will still be present at the conclusion of the titration. The arsenite solution is added until the brown color of the iodine almost disappears. 2 ml. of starch indicator are added and the titration continued until the blue color disappears. The end point is somewhat slow and after each drop the flask should be shaken vigorously.

$$\frac{\text{ml. } I_2 \times N}{\text{ml. } As_2O_3} = N \text{ of } As_2O_3$$

N/10 Iodine. Triturate 13 g. of iodine and 25 g. of potassium iodide in a mortar with small amounts of water until the iodine is all dissolved. Dilute, filter and make up to 1 l. Store in a brown, glass-stoppered bottle.

This solution may be standardized against either the thiosulfate or arsenite. The method for comparison with the arsenite solution is given above. If the thiosulfate solution is used, 20-25 ml. of the iodine solution are run into a flask containing 1 g. of potassium iodide. This is titrated with standard sodium thiosulfate solution using the starch indicator.

$$\frac{\text{ml. } Na_2S_2O_3 \times N}{\text{ml. } I_2} = N \text{ of } I_2$$

3. TOTAL OXIDIZING POWER

Chlorate (Thio B)

The total oxidizing power of the solution consists of chlorate, chlorine dioxide, chlorite and hypochlorite. No entirely satisfactory method has been found for the analysis of these complex solutions. Because it is speedy and uses standard sodium thiosulfate solution, the method of Ditz is recommended. Wagner[2] gives many details of the method and pictures one form of the reaction vessel.

Method: The apparatus consists of a reaction vessel which may be a 1 l. Erlenmeyer flask closed with a stopper carrying a separatory funnel and delivery tube. The delivery tube extends to the bottom of a stoppered test tube which serves as a gas trap. The stopper of this test tube also carries an exit tube.

The sample is placed in the reaction vessel and 25 ml. of 10 per cent potassium iodide in the gas trap and the apparatus is assembled. 40 ml. of 10 per cent sodium bromide are added through the separatory funnel followed by 100 ml. concentrated hydrochloric acid. Stir by shaking. It is advisable to watch the apparatus for a short time to make sure that no potassium iodide is sucked back from the trap. If this threatens the stopcock of the separatory funnel can be briefly opened. After at least 5 min. add 200 ml. of water through the funnel. Place 15 ml. of 10 per cent potassium iodide in the separatory funnel. Blow back the contents of the trap into the flask. After potassium iodide has been added to the contents of the flask the remaining operations of the determination must be completed without delay. Wash the trap, blowing the washings into the flask. Allow the potassium iodide solution from the funnel to flow into the flask. Wash the funnel. Shake the flask to absorb all vapors of bromine or iodine. Remove the stopper and titrate with standard N/10 sodium thiosulfate. Considerable starch indicator is required for a good end point. The volume of solution is large enough so that thorough stirring between drops requires appreciable time.

Solutions: See Section 1.

10 per cent Sodium Bromide. 100 g. sodium bromide dissolved in 1 l. water.

Concentrated Hydrochloric Acid. Some carboys of hydrochloric acid yield low results so that it is necessary to determine their suitability. This can be done by analyzing CP potassium chlorate according to this method. It should appear to be 99.5-100.0 per cent pure.

4. CHLORIDE DETERMINATION

Silver Nitrate ($AgNO_3$)

The chloride is titrated with silver nitrate using potassium chromate as indicator. This determination includes the chloride and the actual chlorine present in the hypochlorite.

Method: 3 per cent hydrogen peroxide is added to the sample dropwise until the absence of foaming indicates that all the hypochlorite has been decomposed. 2 or 3 drops of phenolphthalein solution are added. If the solution is not alkaline, dilute sodium hydroxide is added drop-

wise until it is alkaline. 3 per cent acetic acid is added dropwise until a single drop decolorizes the phenolphthalein. 4 drops of saturated potassium chromate solution are added. The solution is diluted to 50 ml. This is titrated with standard N/10 silver nitrate until the lemon yellow color is changed to a permanent faint orange tint.

Solutions: N/10 Silver Nitrate. 17 g. silver nitrate ($AgNO_3$) per liter. Keep away from light. Standardize with pure sodium chloride.

Potassium Chromate. 240 g. potassium chromate (K_2CrO_4) to 400 ml. water.

Phenolphthalein. 1 per cent solution made by dissolving 1 g. in 100 ml. alcohol.

Note: In the presence of chlorite more than very slight excesses of hydrogen peroxide and acetic acid will yield peculiar colors near the end point and interfere with the analysis.

5. CHLORINE DIOXIDE

Thiosulfate (Thio C)

When chlorine dioxide reacts with an alkali there is a loss of available chlorine.

$$2\ ClO_2 + 2\ NaOH = NaClO_2 + NaClO_3 + H_2O$$

This equation indicates that of the available chlorine present in the chlorine dioxide 2/5 will form chlorite and 3/5 chlorate. Thio C will differ from Thio A (Section 1) by the amount of this chlorate formation. If under these alkaline conditions hypochlorite reacts with reducing materials in the solution, the effect will be an apparent increase in the concentration of chlorine dioxide. This determination is, therefore, of limited applicability.

Method: The sample is added to dilute sodium hydroxide (0.5-2.0N). After standing several minutes 20 ml. 10 per cent potassium iodide are added. The solution is acidified using 30 per cent acetic acid and 1:1 hydrochloric acid. The analysis is completed as described in Section 1.

6. ACIDITY OR ALKALINITY

Acid-Alkali

Method: After adding 10 per cent potassium iodide solution to the sample, it is acidified with a known volume of standard N/10 hydrochloric acid. The thiosulfate titration is conducted as described in Section 1. 15 drops (or more) of sodium alizarin sulfonate indicator are added to the colorless solution. This is titrated with standard N/10 sodium hydroxide to a buff-colored end point. The next drop will give a pink color.

Solutions: The standard N/10 hydrochloric acid and standard N/10 sodium hydroxide may be prepared and standardized by any one of several methods.

Sodium Alizarin Sulfonate. 0.1 per cent solution made by dissolving 0.5 g. sodium alizarin sulfonate in 500 ml. water.

Note: The 10 per cent potassium iodide solution must be made from the alkali-free salt. Recommended specifications are:

Iodate (I_2O_5)	Not over 0.0003 per cent
Alkalinity (K_2CO_3)	Not over 0.014 per cent

The requirement for alkalinity is such that it will correspond to less than one (1) drop of N/10 hydrochloric acid even though an excess of potassium iodide is used in the titration.

7. CALCULATIONS

In each case "N" refers to the normality of that particular solution and "F" to the factor which will convert "equivalents per sample" to the desired units.

Total Available Chlorine

ml. Thio A x N x F

Hypochlorite

(ml. As_2O_3 x N — ml. I_2 x N)F

Chlorite

[ml. Thio A x N — (ml. As_2O_3 x N — ml. I_2 x N)] F

Chlorate

(ml. Thio B — ml. Thio A)N x F

Chloride

[ml. $AgNO_3$ x N — 1/2 (ml. As_2O_3 x N — ml. I_2 x N)] F

Chlorine Dioxide

5/3 (ml. Thio A — ml. Thio C)N x F

Alkali

[ml. HCl x N — (ml. Thio A x N + ml. NaOH x N)] F

Concentrated stock solutions will require dilution in a volumetric flask and titration of an aliquot. But with the bleaching baths it is usually possible to titrate the samples directly. Depending upon concentration various sizes of samples will be used. The concentrations of these oxidizing materials are usually expressed as "grams per liter of available chlorine" or "per cent available chlorine." The values of "F" for various sample sizes are given in the following tabulation:

Values for Factor "F" Expressed as Available Chlorine

Sample Size	*Grams per Liter*	*Per Cent*
ml.		
1	35.46	3.55
5	7.09	.709
10	3.55	.355
25	1.42	.142

The values for "F" given above for the calculation of available chlorine cannot be used when the result is to be expressed in mols. "F" will then be the factor which will convert the size of the sample, which was titrated into the unit of volume or weight desired for reporting the results divided by the oxidation equivalents of a molecule of that particular compound.

Compound	*Oxidation Equivalents*
NaClO	2
$NaClO_2$	4
$NaClO_3$	6
$Ca(ClO)_2$	4
$Ca(ClO_2)_2$	8
$Ca(ClO_3)_2$	12
ClO_2	5

For the calculation of alkalinity the values of "F" for 1 ml. sample will be 40.0 grams per liter for sodium hydroxide, or 53.0 grams per liter for sodium carbonate. The values for other sizes of sample can be easily calculated from these.

SUMMARY

Analytical methods have been given for the various materials encountered in solutions containing Textone, the new bleaching agent. The determination of total available chlorine by the use of thiosulfate, and of hypochlorite, if it is present, by arsenite-iodine are all that are usually required for routine use.

LITERATURE CITED

[1]S. Popoff and J. L. Whitman, J. Am. Chem. Soc. *47*, 2259-75 (1925). This particular method is described on 2266-7.
[2]E. C. Wagner, Ind. Eng. Chem. *17*, 1183-6 (1925).

TRADE NOTES • NEW PRODUCTS

OBITUARY

JACOB F. SCHOELLKOPF, SR.

JACOB F. SCHOELLKOPF, SR., a pioneer in the dyestuff industry of this country, died on September 9th, at his home in Derby, a suburb of Buffalo, N. Y. His age was 84.

He was born in Buffalo on February 27, 1858, where he attended public schools and St. Joseph's College. He later studied chemistry in Stuttgart and Munich, Germany, from 1873 to 1879. He entered the aniline business in Buffalo in 1880 and became president of the firm when it was incorporated in 1900 as the Schoellkopf Aniline and Chemical Works. Following the declaration of war in 1917 the Schoellkopf firm was merged with other companies to form National Aniline & Chemical Co., Inc. He was named president of this company and served until 1918. He later devoted more of his energies to the hydroelectric power field.

In 1931 he founded the Jacob F. Schoellkopf Gold Medal presented annually by the Western New York Section of the American Chemical Society to a scientist for a major advance in chemistry.

Mr. Schoellkopf was prominent in many philanthropic movements. He was a trustee of the University of Buffalo, a member of the Buffalo, the Buffalo Athletic and the Wanakak Country Clubs.

• REORGANIZES PROCUREMENT

Reorganization of the Procurement Division of the Office of the Quartermaster General has been completed by the Director of Procurement, Brigadier General C. L. Corbin, the War Department announced on September 16th.

The Procurement Division purchases clothing, equipage, general supplies, War Aid Supplies, Women's Army Auxiliary Corps supplies, Army Specialist Corps supplies, and subsistence. Its functions include inspection, maintaining liaison with higher authority and other governmental agencies, coordination with other divisions regarding production, storage and distribution, price control, conformity with laws and regulations, and administration of priorities policy.

Under the new set-up four major branches—Management Control and Liaison, Operations, Service, and Subsistence—will supervise all phases of the Quartermaster Corps procurement program, reporting directly to the Director of Procurement.

Management Control and Liaison will handle organization planning and training; Operations will be in charge of purchases, production, priorities, facilities, and inspection; Service will control contract procedure, office management and price adjustment; and Subsistence will handle procurement of all Army food.

In the reorganization, General Corbin has appointed Lieutenant Colonel Roy C. Moore, Quartermaster Corps, to be Deputy Director, and Major Wendell S. Holmes, Army of the United States Assistant to the Deputy Director. Other assignments are:

Subsistence: Brigadier General C. A. Hardigg.

Management Control and Liaison Branch: Major M. E. Allessee, Quartermaster Corps, Chief.

Service Branch: Colonel Van Ness Ingram, Quartermaster Corps, Chief; Lieutenant Colonel C. F. von dem Bussche, Quartermaster Corps, Chief of Contract, Procedure Section; Captain William H. Glennon, Army of the United States, Chief of Office Management Section, and Lieutenant Colonel Henry F. Colt, Quartermaster Corps, Chief of Price Adjustment Section.

Operations Branch: Lieutenant Colonel Roy C. Moore, Quartermaster Corps, Chief; Lieutenant Colonel Robert T. Stevens, Army of the United States, Chief of Textile and Textile Equipage Section and Clothing and Leather Section; Major C. C. Baldwin, Jr., Army of the United States, Chief of Textile Section; Major C. D. Garrett, Army of the United States, Chief of Clothing and Leather Section; Major James E. Baker, Quartermaster Corps, Chief of Textile Equipage Section; Lieutenant Colonel Harold E. Rounds, Army of the United States, Chief of Hard Lines and General Supplies Section; Major Robert B. McKinley, Army of the United States, Chief of Production Service Section; Lieutenant D. A. Henderson, Quartermaster Corps, Chief of Records, Directives and Awards Sub-Section; Captain Wallace G. Campbell, Quartermaster Corps, Chief of Priorities Sub-section; Captain C. W. Morgan, Quartermaster Corps, Chief of Facilities Sub-section; Major W. O. Allison, Army of the United States, Chief of Expediting Sub-section; Captain C. W. Weikert, Quartermaster Corps, Chief of Inspection Sub-section; and and Lieutenant Colonel Robert W. Reuter, Quartermaster Corps, Chief of Fuel and Heavy Equipment Section.

• EVENING TEXTILE COURSES

Columbia University

Fall Session—Began September 24, 1942

University Extension announces the following schedule of courses and opening dates for the Fall Session of 1942:

Textiles eZ 3—Spinning and Weaving of Rayon and Spun Rayon Yarns and Goods. Began Thursday, September 24th, at 7:30 p.m. Room 214 Hamilton Hall, H. R. Mauersberger.

Commercial Art e 21—Textile Design. (Mondays and Thursdays.) Began Thursday, September 24th, at 7 p.m. Room 324 University Hall, Paul R. Reiman.

Textiles eZ 13—Textile Chemistry (Lectures and Laboratory). Began Friday, September 25th, at 7:30 p.m. Room 405 School of Business. Laboratory, Room 209 Havemeyer Hall, A. K. Gyzander.

Textiles eZ 1—Spinning and Weaving of Cotton. Begins Monday, September 28th, at 7:30 p.m. Room 214 Hamilton Hall, H. R. Mauersberger.

Textiles eZ 9—Woolen and Worsted Manufacture. Begins Monday, September 28th, at 7:30 p.m. Room 358 Chandler, Werner Von Bergen.

Textiles eZ 11—Identification, Analysis and Testing. Begins Wednesday, September 30th, at 7:30 p.m. Room 214 Hamilton Hall, G. R. Turner.

Marketing e 17—Materials of Merchandising—Textiles Begins Wednesday, September 30th, at 7:40 p.m. Room 618 School of Business. Mrs. Helena Marsh Lester.

These courses extend for a period of fifteen weeks and are open to all qualified students without examination. Registration began Thursday, September 24th, 1942. Advisers for the above courses may be consulted in room 301 School of Business Building, N. E. corner of 116th Street and Broadway, New York. All inquiries or requests for bulletins, should be addressed to the Director of University Extension, Columbia University, New York.

• FIGHTING FIRES IN CONFINED SPACES

William H. Easton

Safety Research Institute

FIRE PREVENTION WEEK, which will be observed October 4 to 10, is a time for improving fire defenses and teaching fire-fighting forces new methods, wherever this is possible.

This year, the fire brigades of many businesses and industries might profitably be given special instruction in an important,

but often overlooked, problem—that of fighting fires in confined spaces, such as basements, cellars, pits, manholes, vaults, and small compartments generally.

The important feature of this problem is that it involves life-hazards that exist to a far less degree with fires in places where there is ample ventilation.

These hazards originate in the fire itself, and go beyond the heat and flame. Every fire, especially when burning where the ventilation is poor, generates large volumes of the deadly carbon monoxide, and, frequently, other gases, such as hydrogen sulphide and hydrogen cyanide, which are even more poisonous. In consequence, it is always dangerous to breathe smoke and fire gases, and special care must be taken to avoid this danger when the fire is in a confined space.

In fighting fire in a confined space, therefore, the following rules should always be observed:

1. Fight the fire from outside the space wherever possible, standing where there is fresh air and discharging the extinguishing agent on the fire through a doorway or other opening.
2. After the fire is out, do not enter the space without respiratory protection until it has been thoroughly ventilated. Some spaces, such as manholes, may have to be ventilated mechanically before they are safe to enter.
3. If a small unventilated space must be entered when a fire is burning in it, or immediately after the fire is extinguished, gas masks must be worn. The "all-service" type of mask, which protects against carbon monoxide as well as other fire gases, may be worn when the atmosphere of the space is known to contain enough air to support life; but, if there is reason to believe that the atmosphere is deficient in oxygen, some type of oxygen breathing equipment must be used.

• AWARD TO STIFEL

The Army-Navy "E" has been awarded to J. L. Stifel & Sons, Inc., Wheeling, W. Va. In presenting the "E," Robert L. Patterson, Under-Secretary of War, said in part: "The patriotism which you and your employees have shown by your remarkable production record is helping our country along the road to victory. The Army and Navy are proud of the achievement of the men and women of J. L. Stifel & Sons, Inc." Presentation of the award was made at a ceremony at Oglebay Park, Wheeling, at which many high officers of both branches of the service, as well as many high public officials, were present. Lt. Colonel Robert T. Stevens, office of the quartermaster general in Washington, himself a prominent figure in the textile industry, made the speech of presentation. The award was accepted by Arthur C. Stifel, Sr., president of the Stifel organization, in behalf of the company and employees.

• INDUSTRIAL SCRAP CAMPAIGN

10 Suggestions by the American Industries Salvage Committee

1. Head up the campaign by appointing an able executive of the company, armed with authority to act.
2. Use posters, illustrations, pay-envelope stuffers, and all other publicity means to enlist all employees in scrap campaign.
3. Comb plant and yards for dormant scrap and unusable and abandoned equipment.
4. Survey all plant equipment, particularly idle, standing or discarded machines.
5. Classify and segregate scrap and supervise its handling.
6. Make each foreman responsible for preventing spoilage and waste in his department.
7. Report promptly equipment which is obsolete. If equipment has not been used in three months, and it can't be proved that it will be used in the next three, turn it over where it can be used...or scrap it.
8. Salvage usable parts from equipment marked for scrapping.
9. Speed return of scrap to mills and refineries through existing channels. Report regularly on collections of scrap to the Industrial Salvage Committee set up by the War Production Board in your community.
10. Enforce monthly re-checks in every department to find scrap material previously overlooked.

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• GENERAL RELEASE

General Dyestuff Corp., 435 Hudson Street, New York, N. Y., has recently released a circular describing the following product:

Celliton Blue BB Extra Conc. for printing—a bright acetate blue said to be particularly well suited for direct printing. Fine, uniform dispersions in print pastes are said to be obtained with the aid of Monopol Brilliant Oil. It is stated that the new product yields excellent results when used in combinations to obtain navy shades. Circular G-316.

• CLASSIFIED • ADVERTISEMENTS

The rate for "Position Wanted" advertisements in this column is 2 cents a word—with a minimum of 50 cents per insertion. For all other types of advertisements—i.e., help wanted, machinery or supplies for sale—the rate is $6.25 per column inch or less per insertion.

WANTED: Experienced chemist for laboratory in conjunction with superintending production of dyeing and finishing cotton piece goods. Should be capable of testing all types of dyes and chemicals. Central location. Well established dye and finishing plant. In reply give Draft Status, full particulars, training and experience and salary required. Write Box No. 403, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.

WANTED: Graduate chemist. Thorough practical experience in dyeing and bleaching of ribbons and tapes. Experienced in purchasing and cost analysis. To direct dyeing operations and chemical laboratory. State experience and draft classification. Write Box No. 404, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.

POSITION WANTED: Dyer and Chemist—experienced on woolen or worsted piece goods, yarn or stock is open for position. New England section preferred but will go West or South. Write Box No. 405, American Dyestuff Reporter, 440 Fourth Ave., New York, N. Y.

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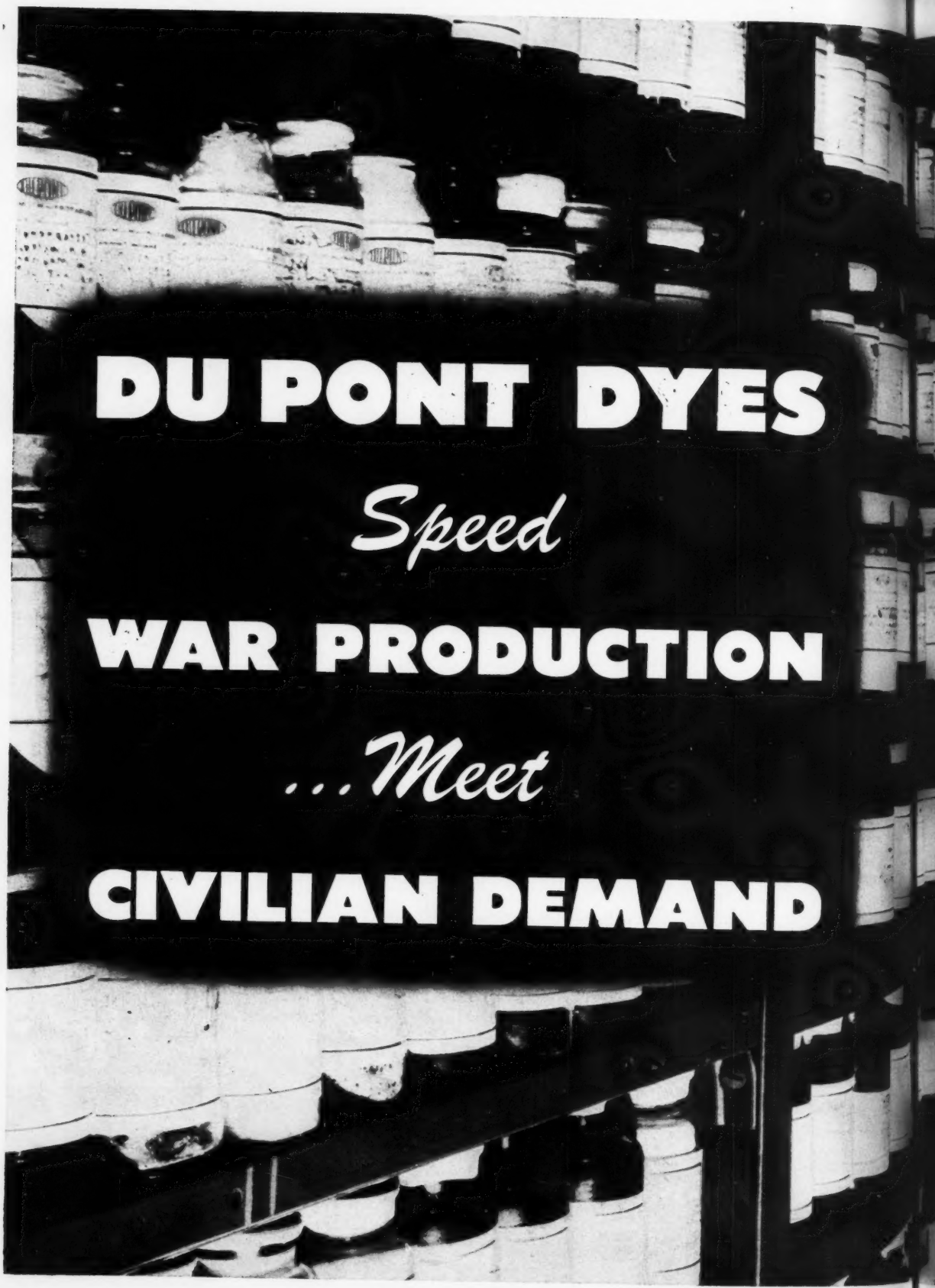
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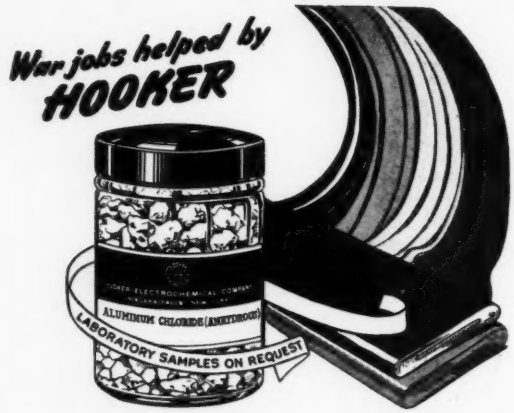

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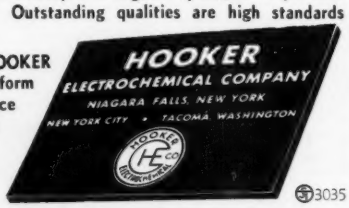

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FOR EVERY TEXTILE APPLICATION

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CHATTANOOGA, TENNESSEE

MANUFACTURING CHEMISTS FOR THE TEXTILE INDUSTRY

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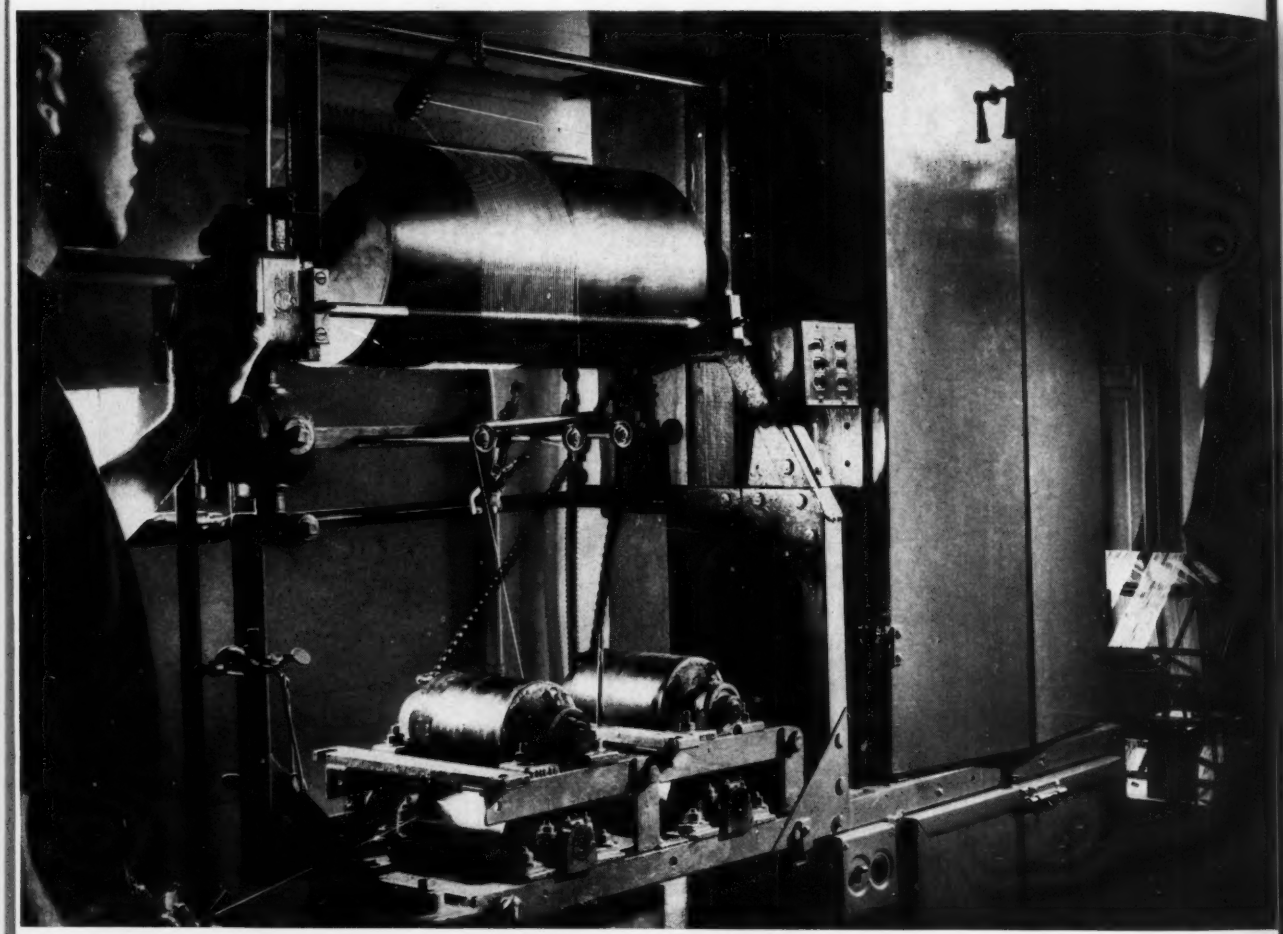

YARN SLASHER — When it was found that no standard laboratory yarn slasher was available, our laboratory research men devised this ingenious machine which closely approximates textile mill equipment. This machine is used in sizing, coating, impregnating and finishing yarns. Through precise control of time, tension, temperature, and drying rate, mill results are obtained under laboratory conditions. Although the photograph shows the yarn being can dried, the equipment may be converted for use as an air dryer. After treatment and drying, the yarn is automatically wound in skeins on the frames at extreme right.

WHAT IS YOUR PROBLEM? Is it a question of yarn sizing, dye penetration, gray goods desizing, or fabric finishing? Whatever the problem, the Rohm & Haas Sales Service Laboratory is prepared to offer its suggestions.

In this modern and complete textile laboratory there is a specialized piece of equipment for testing and checking every plant operation. If a standard laboratory machine is not on the market, our technicians have designed equipment to accomplish the desired result.

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TRITONS—*Synthetic detergents, emulsifying, wetting, and dispersing agents.*

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FORMOPON—*Reducing and stripping agent in acid systems.*

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WASHINGTON SQUARE, PHILADELPHIA, PA.

Manufacturers of Leather and Textile Specialties and Finishes . . Enzymes . . Crystal-Clear Acrylic Plastics . . Synthetic Insecticides . . Fungicides . . and other Industrial Chemicals

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To Dyers and Finishers of

COMFORTER CLOTH - 5.35 - PQD 134

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Recognizing the importance of dyeing and finishing these materials economically—in a manner meeting our government's fastness requirements, A. A. P. chemists have developed a formula which has been proven successful under large scale mill operations.

We are prepared to assist you in setting up this formula in your mill.

A. A. P. is confident that this formula will strengthen the lifeline of your industry and we're genuinely glad to offer our continued cooperation to the American Dyer and Finisher in their efforts to assist and serve our Government during this period of national emergency.

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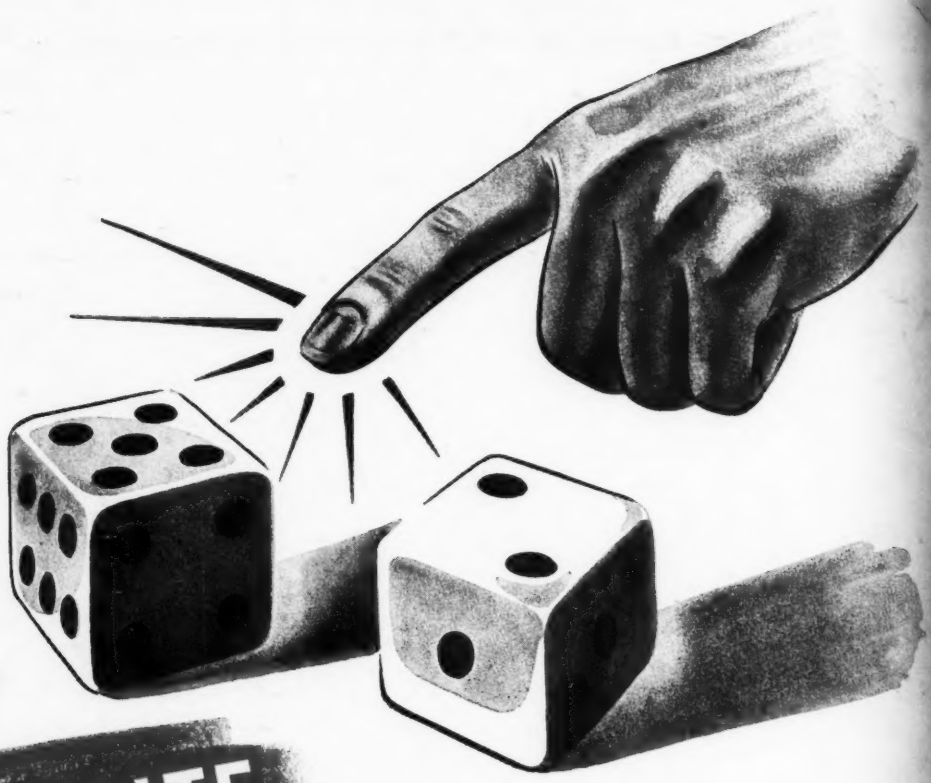

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